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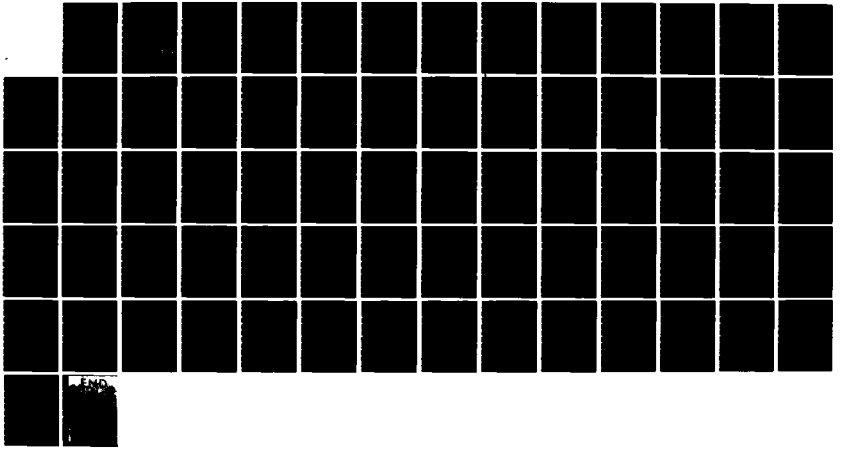

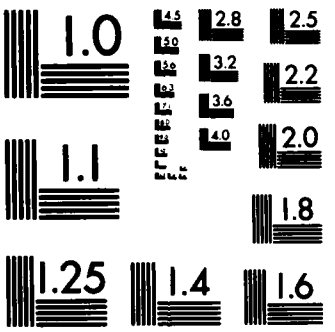

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Ada Compiler Validation Summary Report:

ROLM Ada Compiler, Version 4.42

V-002

May 12, 1983

Prepared By

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under

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number).

The Rolm Ada Compiler, version 4.42 was tested in May 1983 with version 1.1 (4 March 1983) of the ACVC validation tests. Version 1.1 of the test suite contained 1,595 tests of which 1,292 were applicable to this compiler. Of the applicable tests, 56 were withdrawn, due to errors in the tests. Seven tests detected five non-conformancies in the compiler. The remaining 1,234 applicable, correct tests were passed.

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This report has been reviewed and is approved.

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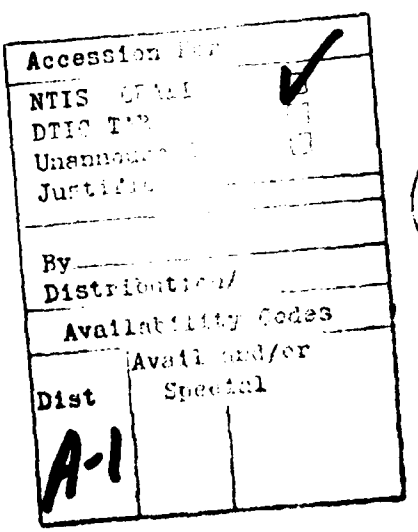

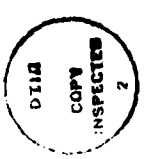

TABLE OF CONTENTS

1 Introduction 1-1
1.1 Purpose of the Validation Summary Report 1-1
1.2 Use of the Validation Summary Report 1-1
1.3 References 1-2
1.4 Definitions of Terms 1-2

2 Test Analysis 2-1
2.1 Class A Testing 2-1
2.1.1 Class A Test Procedures 2-1
2.1.2 Class A Test Results 2-2
2.2 Class B Testing 2-2
2.2.1 Class B Test Procedures 2-2
2.2.2 Class B Test Results 2-2
2.3 Class C Testing 2-3
2.3.1 Class C Test Procedures 2-3
2.3.2 Class C Test Results 2-3
2.4 Class D Testing 2-3
2.4.1 Class D Test Procedures 2-4
2.4.2 Class D Test Results 2-4
2.5 Class L Testing 2-4
2.5.1 Class L Test Procedures 2-4
2.5.2 Class L Test Results 2-4

3 Compiler Nonconformances 3-1

4 Additional Information 4-1
4.1 Compiler Parameters 4-1
4.2 Testing Information 4-1
4.2.1 Pre-Test Procedures 4-2
4.2.2 Control Files 4-2
4.2.3 Test Procedures 4-2
4.2.4 Test Analysis Procedures 4-2
4.2.5 Performance Information 4-2
4.2.6 Description of Errors in Withdrawn Tests 4-2
4.2.7 Description of Inapplicable Tests 4-4
4.2.8 Information Derived from the Tests 4-5
4.2.9 Nonconformances Detected 4-6

5 Summary and Conclusions 5-1

A Complete List of Tests and Results for MV/8000 . . . . . A-1

B Command Procedures Used to Process the Tests B-1
B.1 ACOMP.CLI B-1
B.2 ADA.CLI B-1
B.3 ADALOAD.CLI B-2
B.4 ALINK.CLI B-2

ABSTRACT

The ROLM Ada compiler, version 4.42, was tested in May 1983 with version 1.1 (March 4, 1983) of the ACVC validation tests. Version 1.1 of the test suite contained 1595 tests, of which 1292 were applicable to this compiler. Of the applicable tests, 56 were withdrawn due to errors in the tests. Seven tests detected five nonconformances in the compiler. The remaining 1234 applicable correct tests were passed.

SECTION 1

Introduction

1.1 Purpose of the Validation Summary Report

This report describes the results of the validation effort for the following Ada translator:

Host Machine:	ROLM MSE/800, Data General MV/4000, MV/6000, MV/8000, and MV/10000
Operating System:	AOS/VS-Ada 2.03
Host Disk System:	2 96 megabyte drives
Target Machine:	ROLM MSE/800, Data General MV/4000, MV/6000, MV/8000, and MV/10000
Operating System:	AOS/VS-Ada 2.03
Language Version:	ANSI/MIL-STD-1815A Ada
Translator Version:	4.42
Validator Version:	1.1 (March 4, 1983)

Testing of this translator was conducted by SofTech, Inc. under the supervision of the Ada Validation Office (AVO), at the direction of the Ada Joint Program Office. Testing was conducted from May 9, 1983 through May 12, 1983 at the ROLM Corporation, San Jose, CA, in accordance with AVO policies and procedures.

The purpose of this report is to document the results of the testing performed on the translator, and in particular, to:

- identify any language constructs supported by the translator that do not conform to the Ada standard.
- identify any unsupported language constructs required by the Ada standard, and
- describe implementation-dependent behavior allowed by the standard.

1.2 Use of the Validation Summary Report

The Ada Validation Office may make full and free public disclosure of this report in accordance with the "Freedom of Information Act" (5 U.S.C. #552). The results of the validation are only for the purpose of satisfying United States Government requirements, and apply only to the computers, operating systems, and compiler version identified in this report.

1.2 Use of the Validation Summary Report

The Ada Compiler Validation Capability is used to determine insofar as is practical, the degree to which the subject compiler conforms to the Ada standard. Thus, this report is necessarily discretionary and judgmental. The United States Government does not represent or warrant that the statements, or any one of them, set forth in this report are accurate or complete, nor that the subject compiler has no other nonconformances to the Ada standard. This report is not meant to be used for the purpose of publicizing the findings summarized therein.

Questions regarding this report or the validation tests should be sent to the Ada Validation Office at:

Ada Joint Program Office
Room 3D 139 (400 Army Navy Drive)
Pentagon
Washington, D.C. 20301

1.3 References

Reference Manual for the Ada Programming Language, ANSI/MIL-STD-1815A, January 1983.

Ada Validation Organization: Policies and Procedures, Mitre Corporation, June 1982, PB 83-110601.

Ada Compiler Validation Implementers' Guide, SofTech, Inc., October 1980.

The Ada Compiler Validation Capability, Computer, Vol. 14, No. 6, June 1981.

Using the ACVC Tests, SofTech, Inc., November 1981.

Ada Compiler Validation Plans and Procedures, SofTech, Inc., November 1981.

1.4 Definitions of Terms

Class A tests are passed if no errors are detected at compile time. Although these tests are constructed to be executable, no checks can be performed at run-time to see if the test objective has been met; this distinguishes Class A from Class C tests. For example, a Class A test might check that keywords of other languages (other than those already reserved in Ada) are not treated as reserved words by an Ada implementation.

Class B tests are illegal programs. They are passed if all the errors they contain are detected at compile-time (or link-time) and no legal statements are considered illegal by the compiler.

Class L tests consist of illegal programs whose errors cannot be detected until link time. They are passed if errors are detected prior to beginning execution of the main program.

1.4 Definitions of Terms

Class C tests consist of executable self-checking programs. They are passed if they complete execution and do not report failure.

Class D tests are capacity tests. Since there are no firm criteria for the number of identifiers permitted in a compilation, number of units in a library, etc., a compiler may refuse to compile a class D test. However, if such a test is successfully compiled, it should execute without reporting a failure.

Class E tests provide information about an implementation's interpretation of the Standard. Each test has its own pass/fail criterion. There were no class E tests in Version 1.1 of the test suite.

CUSTOMER: The agency requesting the validation (ROLM Corporation).

HOST: The computer on which the compiler executes (e.g., the ROLM MSE/800).

ACVC: Acronym for the Ada Compiler Validation Capability.

RM: The Ada Language Reference Manual.

IG: ACVC Implementers' Guide.

AVO: The Ada Validation Office. In the context of this report, the AVO is responsible for conducting compiler validations.

TARGET: The computer for which a compiler generates object code (e.g., the ROLM MSE/800).

VALIDATION: The process of validating a compiler. The term is used interchangeably with test or compiler test.

VALIDATION TESTS: The generic form used to refer to a set of test programs which evaluate how closely a compiler conforms to its language specification. In this report, the term will be used (unqualified) to mean the ACVC tests.

SECTION 2

Test Analysis

A summary of tests processed, by class, is given below, where:

Pr = processed.
NA = found to be inapplicable for this implementation.
Er = found to be incorrect, and withdrawn from the validation.
P = passed.
F = failed.
FE = failed to execute to completion.
FC = failed to compile successfully.
Fs = total of all failures (i.e., F+FE+FC).

The following table shows that the ROLM compiler did not pass all applicable correct tests.

Test Class	Pr	NA	Er	P	F	FE	FC	Fs	%Pass
A	45	1	1	43	0	0	0	0	100
B	552	3	38	508	3	0	0	3	99.4
C	699	13	17	665	4	0	0	4	99.4
D	12	2	0	10	0	0	0	0	100
L	10	2	0	8	0	0	0	0	100
Total	1318	21	56	1234	7	0	0	7	99.4

21 tests in the suite were processed but were found to be not applicable to the ROLM translator (see section 4.2.7).

In addition, 56 tests were withdrawn from the test suite because they did not conform to the ANSI/MIL-STD-1815A Standard for the Ada Language (see Section 4.2.6 for details).

2.1 Class A Testing

Class A tests check that legal Ada programs can be successfully compiled. These tests are executed but contain no executable self-checking capabilities. There were 45 class A test programs processed in this validation.

2.1.1 Class A Test Procedures

Each class A test was separately compiled and executed. However, the only purpose of execution is to produce a message indicating that the test passed.

2.1.2 Class A Test Results

Successful compilation and execution without any error messages indicates the tests passed. One class A test was withdrawn because it was found to contain an error. In addition, one class A test was inapplicable to this implementation (see section 4.2.7). The remaining 43 class A tests passed.

2.2 Class B Testing

Class B tests check the ability to recognize illegal language usage. 552 class B tests were processed.

2.2.1 Class B Test Procedures

Each class B test was separately compiled. The resulting test compilation listings were manually examined to see whether every error in the test was detected. If all errors were not detected, a version of the test was created that contained only undetected errors. This revised version was recompiled and the results analyzed. If all errors were still not detected, the revision process was repeated until a revised test contained only a single illegal construct.

Similarly, if a legal construct was reported to be illegal, a version of the test was created that contained only legal constructs. This revised version was recompiled and the results analyzed.

A B test is considered to fail only if a version of the test containing a single illegal construct is accepted by the compiler (i.e., an illegal construct is not detected) or a version containing no errors is rejected (i.e., a legal construct is rejected).

2.2.2 Class B Test Results

552 class B tests were presented to the compiler. Because all errors were not detected when compiling the original tests (and because in one case, a legal construct was rejected), the following 53 tests were modified by removing the detected errors; the modified tests were then resubmitted to see if the remaining errors would be detected (or if the legal construct would still be rejected):

B22001A.TST	B24005A.ADA	B37301A.ADA	B45205A-AB.ADA	B61001A.ADA
B22001B.TST	B24005B.ADA	B37301B.ADA	B48002A-B.ADA	B64001A-B.ADA
B22001C.TST	B24104A.ADA	B37307B.ADA	B51001A.ADA	B64004A.ADA
B22003A.ADA	B26005A.ADA	B38001A.ADA	B51003A.ADA	B67001A-B.ADA
B22004A.ADA	B33004A.ADA	B38003A-AB.ADA	B52002E-AB.ADA	B95006A.ADA
B22004B.ADA	B35101A.ADA	B38008A-B.ADA	B52003A.ADA	B95007A.ADA
B22004C.ADA	B36171A-B.ADA	B38008B-AB.ADA	B52006A.ADA	B99003A-AB.ADA
B23004A.ADA	B36171B-B.ADA	B41102A-B.ADA	B53009A.ADA	BC1001A-B.ADA
B23004B.ADA	B37003A-AB.ADA	B41202A-B.ADA	B55A01A-AB.ADA	BC1201B-AB.ADA
B24001B.ADA	B37004A-B.ADA	B41302A.ADA	B56001A-AB.ADA	BE3802A-B.ADA
B24001C.ADA	B37201A.ADA	B44001A.ADA		

Of the 552 Class B tests processed, 3 were inapplicable to this implementation (see section 4.2.7), and 38 were withdrawn because the tests were incorrect (see section 4.2.6). The remaining 511 tests contained 3200 illegal constructs; two illegal constructs were not detected and one legal construct was rejected (see section 4.2.9 for details).

2.3 Class C Testing

Class C tests check that legal Ada programs are correctly compiled and executed by an implementation. 699 class C tests were processed in this validation attempt.

2.3.1 Class C Test Procedures

Each Class C test was separately compiled and executed. The tests are self-checking and produce PASS-FAIL messages. All "failed" tests were individually checked to see if they were correct and if they were applicable to the implementation. Those tests that were inapplicable or that did not conform to the Ada standard were withdrawn.

2.3.2 Class C Test Results

All class C tests were processed except those tests requiring a floating point precision exceeding SYSTEM.MAX_DIGITS (277 tests).

699 class C tests were processed. 17 tests were withdrawn because of errors in the tests; in addition, 13 tests were found to be inapplicable to this implementation. Four tests could not be successfully processed unless an implementation defined pragma was inserted to identify the main program. This required use of an implementation defined pragma was not considered to conform to the Standard, and these tests were considered to fail. The remaining 665 tests passed.

2.4 Class D Testing

Class D tests are executable tests used to check an implementation's compilation and execution capacities. 12 class D tests were used in this validation.

2.4.1 Class D Test Procedures

Each Class D test was separately compiled and executed. The tests are self-checking and produce PASS-FAIL messages.

2.4.2 Class D Test Results

Of the 12 class D tests, 10 passed and the rest were found to be inapplicable to this implementation. See section 4.2.7 for further information.

2.5 Class L Testing

Class L tests check that incomplete or illegal Ada programs involving multiple separately compiled source files are detected prior to executing the main program or elaborating any library unit. 10 test programs were processed in this validation attempt.

2.5.1 Class L Test Procedures

Each Class L test was separately compiled and execution was attempted. The tests produce FAIL messages if executed. All "failed" tests were individually checked to see if they were correct and if they were applicable to the implementation. Those tests that were inapplicable or that did not conform to the Ada standard were withdrawn.

2.5.2 Class L Test Results

Of the 10 class L tests, 2 were found to be inapplicable to this implementation (see section 4.2.7). The remaining 8 tests passed.

SECTION 3

Compiler Nonconformances

The following 5 nonconformances were found (see Section 4.2.9 for details):

- Four tests required the use of an implementation defined pragma to identify the main program: C86001E-B, CA1003A, CA1003B, and CA1005A.
- An incompatible constraint made a program illegal instead of causing a run-time exception: BE3802A-B.
- 'ADDRESS produced the wrong type when used in a generic formal part: BC1001A-B.
- The closing identifier in a nested accept statement did not match the name of the entry being accepted, and this mismatch was not detected: B95006A.
- LONG_INTEGER was predefined in STANDARD, but did not have a range substantially greater than the range for INTEGER.

SECTION 4

Additional Information

This section describes in more detail how the validation was conducted.

4.1 Compiler Parameters

Certain tests do not apply to all Ada compilers, e.g., compilers are not required to support several predefined floating point types, and so tests must be selected based on the predefined types an implementation actually supports. In addition, some tests are parameterized according to the maximum token length supported by an implementation, the maximum floating point precision supported, etc. The implementation dependent parameters used in performing this validation were:

- maximum token length: 100 characters.
- maximum digits value for floating point types: 6.
- SYSTEM.MIN_INT: -2,147,483,646 (-(2**31 - 2)).
- SYSTEM.MAX_INT: 2,147,483,646 (2**31 - 2).
- predefined numeric types: INTEGER, FLOAT, SHORT_INTEGER.
- INTEGER'FIRST: -2,147,483,646 (-(2**31 - 2)).
- INTEGER'LAST: 2,147,483,646 (2**31 - 2).
- SHORT_INTEGER'FIRST: -32,767 (-(2**15) + 1).
- SHORT_INTEGER'LAST: 32,767 (2**15 - 1).
- source character set: ASCII

4.2 Testing Information

Tests were compiled/executed at the ROLM Corporation, San Jose, CA. All tests were processed on the Data General MV/8000 in San Jose. Since ROLM stated that the same compiler was used on the other computers involved in this validation effort, the AVO decided it was sufficient to use just the executable tests on the other machines. Hence, all tests except the class B tests were executed on the ROLM MSE/800 (at San Jose). No tests were executed on the MV/4000, MV/6000, and MV/10000, since the compiler did not pass all the tests executed on the MV/8000.

4.2.1 Pre-Test Procedures

Prior to testing, appropriate values for the compiler-dependent parameters were determined. These values were used to adapt tests that depend on the values. The adaptation was conducted on-site at ROLM.

4.2.2 Control Files

ROLM provided command procedures that compiled and executed tests automatically. These procedures are given in Appendix B of this report.

4.2.3 Test Procedures

All files from the Version 1.1 tape were read onto disk. The package REPORT and the procedure CHECK_FILE were first compiled and the corresponding library file saved for each machine. The tests checking the report package and the CHECK_FILE procedure were then executed. Then all tests were run on the MV/8000. The results were checked manually.

4.2.4 Test Analysis Procedures

On completion of testing, all results were analyzed for failed class A, C, D, or L programs, and all class B compilation results were individually analyzed. Analysis procedures are described for each test class in section 2.

Tests found to contain errors were withdrawn.

4.2.5 Performance Information

The time required to run the full set of tests on the MV/8000 was approximately 32 hours and 10 minutes, using two job streams.

4.2.6 Description of Errors in Withdrawn Tests

The following tests in version 1.1 of the ACVC did not conform to the ANSI Ada standard and were withdrawn for the reasons given below.

- 'RANGE was assumed to yield a subtype: B32201A-B.ADA.
- An explicit range constraint was specified in a discriminant specification: B37004H-B.ADA.
- An expression using a basic operation (in particular, the membership and short circuit logical operations) was assumed to be static: C37307A.ADA, C54A27A-AB.ADA.
- An incorrect value in an expression made the expression non-static when it was required to be static: B37310B-B.ADA.

- An illegal reference was made to an incomplete type: C38102A-AB.ADA.

- A test checking that discriminant specifications satisfied the conformance rules specified in RM 6.3.1 incorrectly allowed a new name (obtained by a renaming declaration) to be considered identical to the old name: B38103A-B.ADA.

- Qualification instead of conversion was needed to disambiguate an enumeration literal: C45401B.ADA.

- Incorrect allocator syntax was used: B48002J-AB.ADA.

- 'RANGE was incorrectly assumed to produce a static range: A55B14A-AB.ADA.

- An attempt was made to read an out parameter: C58004C.ADA, C63004A.ADA, C64106A-B.ADA.

- Formal parameters of a limited type were not allowed to have default expressions: B61005A.ADA, B61005B.ADA.

- This test was constructed so that a single error required two diagnostic messages for the test to be passed, violating test coding guidelines that no "second-order" illegal constructs would appear: B74001A.ADA.

- A deferred constant was allowed in the default expression of a generic formal parameter: B74301B-AB.ADA, B74301C-AB.ADA.

- SELECT_ERROR was used incorrectly as the name of a predefined exception: B83A01B.ADA, BB2001A.ADA, CC3120B-B.ADA.

- Two tests contained errors concerning the visibility of statement labels, in particular, the fact that these labels are declared in the innermost enclosing block was not properly noted in these tests: B83A06A.ADA, B83A06H.ADA.

- No pragmas in this test should be considered illegal: B91002A.ADA

- Test logic incorrect: C97114A-B.ADA, C97115A-B.ADA.

- These tests are obsolete: BA1101F0-AB.ADA, BA1101F1M-AB.ADA, CC1007A-B.ADA.

- The obsolete attribute, 'ACTUAL_DELTA, was used (instead of 'SMALL): BC1002A-AB.ADA.

- A generic formal parameter with a discriminant was used as though the discriminant had a default value: BC1206A-B.ADA, CC3203A-B.ADA, BC3205F-B.ADA, BC3205G-B.ADA, BC3205H-B.ADA, BC3205I2-B.ADA, BC3205J-B.ADA, BC3404B-B.ADA, BC3405B-B.ADA, BC3405C-B.ADA.

- A generic formal parameter's name was used as its own default name: CC1301A-AB.ADA.
- The 'POS and 'VAL attributes were used as default names for generic formal subprograms: CC1302A-AB.ADA.
- An instantiation with an unconstrained type having default discriminants was incorrectly considered legal: BC3204A-B.ADA, BC3204B-B.ADA, BC3204C2-B.ADA, BC3204D-B.ADA, BC3205A-B.ADA, BC3205B-B.ADA, BC3205C-AB.ADA, BC3205D2-B.ADA, BC3405E-AB.ADA, BC3405F-AB.ADA.
- An instantiation with an unconstrained array type was incorrectly marked as being legal: BC3403C-AB.ADA.
- An undeclared type was used: BC3503C-B.ADA.
- Aggregates were written for a limited type: CC3601C-AB.ADA.
- Exponentiation was used with a fixed point type: CE2401E-B.DEP.
- A file reference was omitted in a call to SKIP_PAGE: CE3406C-B.ADA.

4.2.7 Description of Inapplicable Tests

277 tests were not processed because SYSTEM.MAX_DIGITS was 6. These tests were:

C24113C,D,...,Y-B	C35708C,D,...,Y-B	C45421C,D,...,Y-B
C35705C,D,...,Y-B	C35802C,D,...,Y-B	C45424C,D,...,Y-B
C35706C,D,...,Y-B	C45241C,D,...,Y-B	C45521C,D,...,Y-B
C35707C,D,...,Y-B	C45321C,D,...,Y-B	C45621C,D,...,Z-B

7 tests were inapplicable because the implementation did not support SHORT_FLOAT, LONG_FLOAT, or LONG_LONG_INTEGER:

SHORT_FLOAT	C34001F-B, C35702A-AB, B86001CP-AB
LONG_FLOAT	C34001G-B, C35702B-AB, B86001CQ-AB
LONG_LONG_INTEGER	B86001DT-AB

LA3004A6M-AB and LA3004B6M-B were inapplicable because they required support for the INLINE pragma.

One class C test, C4A004A, required the evaluation of 32 bit universal integer expressions, which exceeded the capacity of the implementation; this test was therefore considered inapplicable.

Results for two inapplicable class D tests are given in Section 4.2.8.

4.2.7 Description of Inapplicable Tests

Several I/O tests were inapplicable because the implementation did not allow sequential or direct I/O to be instantiated with unconstrained array types or unconstrained types with discriminants: AE2101C-B, CE2201B-B, CE2201D-B, CE2201E-B, CE2401D-B.

The following tests were inapplicable because the implementation did support the file modes, IN_FILE, OUT_FILE, INOUT_FILE as well as RESET and DELETE operations: CE2102D-B, CE2102E-B, CE2102F-B, CE2102G-B.

4.2.8 Information Derived from the Tests

Processing of the following tests indicated support as described below for a variety of implementation options examined by the tests.

- C24101A-B.TST: if a based integer literal has a value exceeding SYSTEM.MAX_INT, an implementation may either reject the compilation unit at compile time or raise NUMERIC_ERROR at run-time. Raising NUMERIC_ERROR at run time is preferred, since it makes programs compilable for a wider variety of implementations (the numeric literal might occur in an unexecutable portion of code). This test showed that the ROLM Ada compiler rejects a program containing an integer literal that exceeds SYSTEM.MAX_INT.

- D29002K-B.ADA: This test declares 698 identifiers and was successfully processed by the implementation.

- C36202A-B, C36202B-B, C52103Y: These tests declare array types having a dimension whose length exceeds INTEGER'LAST. An implementation is allowed to raise NUMERIC_ERROR for such type declarations. The ROLM Ada implementation raised no exception condition for these tests.

- C4A002A-AB.ADA, D4A002B-AB.ADA, C4A004A-AB.ADA, D4A004B-AB.ADA: These tests contain universal integer calculations requiring 32 and 64 bits of accuracy, i.e., values that exceed SYSTEM.MAX_INT are used. An implementation is allowed to reject programs requiring such calculations; the ROLM compiler rejected these programs.

- C52103X-AB.ADA, C52104X-B.ADA, C52104Y.ADA: These tests declare Boolean arrays with INTEGER'LAST+2 components. An implementation may raise NUMERIC_ERROR at the type declaration or STORAGE_ERROR when array objects of these types are declared, or it may accept the type and object declarations. The ROLM compiler raised STORAGE_ERROR.

- A series of tests (D55A03*-AB) check to see what level of loop nesting is allowed by an implementation. Tests containing loops nested 65 levels deep were passed.

- C55B16A-AB: This test contains a representation clause for a non-contiguous enumeration type representation. The representation clause was accepted by the implementation, and the test passed.

- D56001B-AB contains blocks nested 65 levels deep. This test was passed.

- C94004A-B.ADA: This test checks to see what happens when a library unit initiates a task and a main program terminates without insuring that the library unit's task is terminated. An implementation is allowed to terminate the library unit task, or it is allowed to leave the task in execution. This test showed that such library tasks do not terminate when the main program terminates.

- CA1012A4M-B.DEP: This test checks whether an implementation requires generic library unit bodies to be compiled in the same compilation as the generic declaration. The ROLM implementation allows generic declarations and bodies to be compiled in completely separate compilations.

- AE2101C-B, CE2201B-B, CE2201D-B, CE2201E-B, CE2401D-B: These tests check to see if an implementation allows instantiation of direct and sequential I/O with unconstrained array types or unconstrained record types with discriminants. The results show that such instantiations are not allowed by the ROLM implementation.

- CE2107*-B, CE2110B-B, CE2111D-B: These tests check to see if more than one internal file may be associated with the same external file. The tests show that such multiple associations are allowed even when the internal files have different element types and even when one internal file is a sequential file and the other is a direct file. In addition, the delete operation can be applied to an external file that is associated with more than one internal file, and no exception is raised. Finally, the tests show that RESETing an internal file has no effect on other internal files associated with the same external file.

- CE2106A-B, CE2110A-B: These tests confirmed that dynamic creation and deletion of files is supported.

4.2.9 Nonconformances Detected

The following portion of B95006A was compiled without detecting any errors:

```
TASK T IS
     ENTRY E0;
     ENTRY E1 (I : INTEGER);
     ENTRY E2 (BOOLEAN) (I : INTEGER);
END T;

TASK BODY T IS
     J : INTEGER := 0;
BEGIN
```

```
            ACCEPT E1 (I : INTEGER) DO
                 ACCEPT E2 (TRUE) (I : INTEGER) DO
                      ACCEPT E0 DO
                           J := I;
                      END E0;          -- OK.
                 END E0;               -- ERROR: MISMATCHED IDENTIFIER.
            END E1;                    -- OK.

        END T;
```

The following portion of BC1001A-B was incorrectly rejected:

```
        GENERIC
             WITH PROCEDURE P1 IS <> ;          -- OK.
             WITH PROCEDURE P2 IS P1;           -- OK.
             X6 : ADDRESS := P1'ADDRESS;        -- OK.
***   Expression P1'ADDRESS is the wrong type for context
      Context requires type 'new INTEGER'
        PACKAGE P4 IS END P4;
```

An incompatible constraint was reported as a compile time error in BE3802A-B:

```
        TYPE FIX IS DELTA 0.5 RANGE 0.0 .. 10.0;
        SUBTYPE SFX IS FIX DELTA 0.1;
***     Delta 0.1 is less than delta of prior constraint
```

Since the subtype declaration is legal, no error should be reported (an exception should be raised at run-time).

ROLM said they did not support LONG_INTEGER, but this type was predefined in STANDARD, as shown by test C34001E-B, which was compiled without error. It was then found that the predefined type LONG_INTEGER had a range that was only one greater than the predefined INTEGER type; such a restricted range is not compatible with the Standard's requirement that LONG_INTEGER have a "(substantially) longer range" than INTEGER (See Standard, Section 3.5.4, paragraph 7).

SECTION 5

Summary and Conclusions

The Ada Validation Office identified 1318 of the ACVC version 1.1 tests as being potentially applicable to the validation of the ROLM compiler hosted on the ROLM MSE/800 and the Data General MV/4000, MV/6000, MV/8000, and MV/10000. Of these, 56 were withdrawn due to test errors, and 21 were determined to be inapplicable after they were processed. The compiler failed three tests and required use of an implementation-defined pragma to correctly run four additional tests. The remaining 1234 tests passed.

The AVO considers these results to show unacceptable compliance to ANSI/MIL-STD-1815A.

APPENDIX A

Complete List of Tests and Results for MV/8000

This Appendix gives a complete list of the ACVC test files used in the validation attempt for the MV/8000, in order by ACVC Implementers' Guide (Ada Reference Manual) section and objective.

To obtain more information about a test itself, the test name indicates the class of the test and which test objective in the ACVC Implementers' Guide applies to the test. The name is interpreted as follows, where the first column below indicates the character position in the name and the second column, the meaning of that position:

1	Class of test (A, B, C, D, E, L).
2	Implementers' Guide Chapter number (in hexadecimal).
3	Implementers' Guide Section number within a Chapter (in hexadecimal).
4	Implementers' Guide Subsection number or letter.
5, 6	Implementers' Guide Test Objective number (two digit decimal number).
7	Test sequence letter (A-Z).
8	Compilation sequence digit or letter (0-9,A-Z).
9	When there are several compilation units, "M" indicates the main program.

Characters 8 and 9 are only present for tests that consist of several separately compiled units. The eighth character indicates the order in which the units are to be compiled (unit 0 is compiled first). The ninth character is only present for the main program and is always "M".

The suffix -AB means the test is valid for both the ANSI Ada Standard and the version of Ada published in July 1980. A -B suffix implies the test is only valid for the ANSI Standard. Tests without a suffix are considered to be applicable to both the ANSI Standard and the July 1980 version.

A file name ending with .TST means the test depends on one or more of the implementation dependent parameters listed in Section 4.1. A file name ending with .DEP means the test is not necessarily applicable to all implementations.

The result for each file is also given, where:

P	= passed.
PC	= compilation was successful (for unit of multiple unit test).
PS	= passed after modifying (splitting) the test (e.g., to see if all errors can be detected by the compiler).
F	= failed.
NA	= not applicable to this implementation.
W	= withdrawn due to test errors.

Performance data was not available in machine readable form at the time this report was prepared. The number of semicolons (i.e., statements) in each

test is indicated by SC; the number of illegal constructs (error conditions) in a class B test is indicated by EC.

The results for each test file were as follows:

B22001A.TST	PS	SC	=	26	EC	= 8
B22001B.TST	PS	SC	=	8	EC	= 3
B22001C.TST	PS	SC	=	9	EC	= 3
A22002A.ADA	P	SC	=	28		
B22003A.ADA	PS	SC	=	11	EC	= 5
B22004A.ADA	PS	SC	=	7	EC	= 5
B22004B.ADA	PS	SC	=	6	EC	= 4
B22004C.ADA	PS	SC	=	7	EC	= 4
C23001A.ADA	P	SC	=	16		
B23002A.ADA	P	SC	=	13	EC	= 6
C23003A.TST	P	SC	=	17		
B23004A.ADA	PS	SC	=	19	EC	= 8
B23004B.ADA	PS	SC	=	27	EC	= 12
B24001A.ADA	P	SC	=	30	EC	= 14
B24001B.ADA	PS	SC	=	36	EC	= 17
B24001C.ADA	PS	SC	=	37	EC	= 17
C24002A.ADA	P	SC	=	10		
C24002B.ADA	P	SC	=	10		
C24002C.ADA	P	SC	=	11		
C24003A.TST	P	SC	=	15		
C24003B.TST	P	SC	=	20		
C24003C.TST	P	SC	=	21		
B24005A.ADA	PS	SC	=	14	EC	= 6
B24005B.ADA	PS	SC	=	15	EC	= 6
C24101A-B.TST	P	SC	=	14		
C24102A.ADA	P	SC	=	13		
C24102B.ADA	P	SC	=	14		
C24102C.ADA	P	SC	=	17		
C24103A.ADA	P	SC	=	38		
B24104A.ADA	PS	SC	=	20	EC	= 18
B24104B.ADA	P	SC	=	8	EC	= 6
B24104C.ADA	P	SC	=	9	EC	= 6
C24113A-B.DEP	P	SC	=	18		
C24113B-B.DEP	P	SC	=	18		
B26002A.ADA	P	SC	=	11	EC	= 4
C26002B.ADA	P	SC	=	19		
A26004A.TST	P	SC	=	11		
B26005A.ADA	PS	SC	=	37	EC	= 31
C26006A.ADA	P	SC	=	12		
C26008A.ADA	P	SC	=	9		
C27001A.ADA	P	SC	=	10		
C27002A-B.ADA	P	SC	=	15		
B29001A.ADA	P	SC	=	126	EC	= 62
A29002A-B.ADA	P	SC	=	74		
A29002B-B.ADA	P	SC	=	69		
A29002C-B.ADA	P	SC	=	68		
A29002D-B.ADA	P	SC	=	90		

A29002E-B.ADA	P	SC = 72	
A29002F-B.ADA	P	SC = 111	
A29002G-B.ADA	P	SC = 88	
A29002H-B.ADA	P	SC = 63	
A29002I-B.ADA	P	SC = 95	
A29002J-B.ADA	P	SC = 81	
D29002K-B.ADA	P	SC = 766	
B32103A-AB.ADA	P	SC = 26	EC = 12
B32106A-B.ADA	P	SC = 10	EC = 4
B32201A-B.ADA	W		
B32202A-B.ADA	P	SC = 33	EC = 15
B32202B-B.ADA	P	SC = 21	EC = 9
B32202C-B.ADA	P	SC = 28	EC = 12
C32203A-B.ADA	P	SC = 15	
A32203B-B.ADA	P	SC = 22	
A32203C-B.ADA	P	SC = 18	
A32203D-B.ADA	P	SC = 16	
B33001A.ADA	P	SC = 27	EC = 10
B33002A.ADA	P	SC = 8	EC = 5
B33003A.ADA	P	SC = 14	EC = 4
B33003B-AB.ADA	P	SC = 22	EC = 9
B33003C-AB.ADA	P	SC = 22	EC = 9
B33004A.ADA	PS	SC = 33	EC = 19
C34001A-B.ADA	P	SC = 66	
C34001B-B.ADA	P	SC = 41	
C34001C-B.ADA	P	SC = 37	
C34001D-B.DEP	P	SC = 24	
C34001E-B.DEP	NA	SC = 24	
C34001F-B.DEP	NA	SC = 43	
C34001G-B.DEP	NA	SC = 43	
C34001H-B.ADA	P	SC = 24	
C34001I-B.ADA	P	SC = 29	
C34001K-B.ADA	P	SC = 54	
C34001L-B.ADA	P	SC = 48	
C34001M-B.ADA	P	SC = 28	
C34001N-B.ADA	P	SC = 28	
C34001O-B.ADA	P	SC = 84	
C34001P-B.ADA	P	SC = 25	
C34001Q-B.ADA	P	SC = 27	
C34001R-B.ADA	P	SC = 21	
B34001S-AB.ADA	P	SC = 15	EC = 3
C34001T-B.ADA	P	SC = 22	
B35101A.ADA	PS	SC = 6	EC = 3
C35104A.ADA	P	SC = 9	
B35301A.ADA	P	SC = 12	EC = 6
B35501A.ADA	P	SC = 34	EC = 18
C35504A-AB.ADA	P	SC = 13	
C35504B-B.ADA	P	SC = 22	
C35505A.ADA	P	SC = 28	
C35505B.ADA	P	SC = 27	
B35506A.ADA	P	SC = 36	EC = 9
B35506B.ADA	P	SC = 23	EC = 9

C35508A-AB.ADA	P	SC = 21	
C35508B-B.ADA	P	SC = 64	
B35701A.TST	P	SC = 10	EC = 6
C35702A-AB.DEP	NA	SC = 7	
C35702B-AB.DEP	NA	SC = 7	
C35703A.ADA	P	SC = 11	
C35704A-AB.ADA	P	SC = 12	
C35704B-AB.ADA	P	SC = 12	
C35704C-AB.ADA	P	SC = 12	
C35704D-AB.ADA	P	SC = 16	
C35705A-B.DEP	P	SC = 16	
C35705B-B.DEP	P	SC = 16	
C35706A-B.DEP	P	SC = 15	
C35706B-B.DEP	P	SC = 15	
C35707A-B.DEP	P	SC = 11	
C35707B-B.DEP	P	SC = 11	
C35708A-B.DEP	P	SC = 11	
C35708B-B.DEP	P	SC = 11	
B35709A.ADA	P	SC = 14	EC = 3
C35802A-B.DEP	P	SC = 22	
C35802B-B.DEP	P	SC = 22	
B36101A-AB.ADA	P	SC = 119	EC = 68
B36102A.ADA	P	SC = 35	EC = 17
B36103A.ADA	P	SC = 17	EC = 7
B36171A-B.ADA	PS	SC = 68	EC = 33
B36171B-B.ADA	PS	SC = 16	EC = 4
B36171C-AB.ADA	P	SC = 4	EC = 1
B36171D-AB.ADA	P	SC = 3	EC = 1
B36171E-AB.ADA	P	SC = 3	EC = 1
B36171F-AB.ADA	P	SC = 3	EC = 1
B36171G-AB.ADA	P	SC = 5	EC = 1
B36171H-AB.ADA	P	SC = 4	EC = 1
B36171I-AB.ADA	P	SC = 4	EC = 1
C36172A-B.ADA	P	SC = 86	
C36174A.ADA	P	SC = 39	
B36201A-B.ADA	P	SC = 60	EC = 32
C36202A-B.ADA	P	SC = 20	
C36202B-B.ADA	P	SC = 23	
C36204A-B.ADA	P	SC = 51	
C36205A.ADA	P	SC = 70	
C36205B.ADA	P	SC = 62	
C36205C.ADA	P	SC = 58	
C36205D.ADA	P	SC = 72	
C36205E.ADA	P	SC = 57	
C36205F.ADA	P	SC = 58	
C36205G.ADA	P	SC = 58	
C36205H.ADA	P	SC = 59	
C36205I.ADA	P	SC = 59	
C36205J.ADA	P	SC = 67	
C36205K.ADA	P	SC = 62	
C36301A-B.ADA	P	SC = 16	
C36301B-AB.ADA	P	SC = 12	

C36302A.ADA	P	SC = 9		
C36303A.ADA	P	SC = 15		
C36304A.ADA	P	SC = 33		
C36305A-AB.ADA	P	SC = 40		
B37003A-AB.ADA	PS	SC = 35	EC = 14	
B37004A-B.ADA	PS	SC = 44	EC = 27	
B37004C-B.ADA	P	SC = 12	EC = 4	
B37004D-B.ADA	P	SC = 4	EC = 1	
B37004E-B.ADA	P	SC = 8	EC = 1	
B37004F-B.ADA	P	SC = 8	EC = 1	
B37004G-B.ADA	P	SC = 5	EC = 1	
B37004H-B.ADA	W			
C37005A.ADA	P	SC = 30		
C37007A-AB.ADA	P	SC = 60		
C37008A-B.ADA	P	SC = 126		
C37008B-B.ADA	P	SC = 99		
C37011A-B.ADA	P	SC = 26		
C37012A-AB.ADA	P	SC = 19		
C37013A-AB.ADA	P	SC = 18		
B37101A.ADA	P	SC = 44	EC = 9	
C37103A-AB.ADA	P	SC = 41		
C37105A.ADA	P	SC = 18		
B37201A.ADA	PS	SC = 28	EC = 13	
B37202A.ADA	P	SC = 44	EC = 19	
B37202B.ADA	P	SC = 7	EC = 1	
B37203A.ADA	P	SC = 14	EC = 6	
B37204A-AB.ADA	P	SC = 54	EC = 11	
B37205A-AB.ADA	P	SC = 8	EC = 3	
C37208A-B.ADA	P	SC = 68		
C37208B-AB.ADA	P	SC = 37		
C37209A.ADA	P	SC = 73		
B37301A.ADA	PS	SC = 25	EC = 8	
B37301B.ADA	PS	SC = 33	EC = 6	
B37302A-AB.ADA	P	SC = 36	EC = 11	
B37303A.ADA	P	SC = 25	EC = 5	
C37304A-AB.ADA	P	SC = 22		
C37305A.ADA	P	SC = 24		
C37306A.ADA	P	SC = 21		
C37307A.ADA	W			
B37307B.ADA	PS	SC = 26	EC = 4	
C37309A-AB.ADA	P	SC = 22		
B37309B-AB.ADA	P	SC = 17	EC = 2	
C37310A-AB.ADA	P	SC = 48		
B37310B-B.ADA	W			
B37311A-AB.ADA	P	SC = 10	EC = 2	
B38001A.ADA	PS	SC = 12	EC = 4	
B38003A-AB.ADA	PS	SC = 23	EC = 13	
C38004A.ADA	P	SC = 19		
C38005A-B.ADA	P	SC = 66		
C38006A-B.ADA	P	SC = 12		
C38007A-B.ADA	P	SC = 13		
B38008A-B.ADA	PS	SC = 18	EC = 8	

B38008B-AB.ADA	PS	SC = 24	EC = 12
B38101B-AB.ADA	P	SC = 12	EC = 1
C38102A-AB.ADA	W		
C38102B-B.ADA	P	SC = 16	
C38102C-B.ADA	P	SC = 16	
B38103A-B.ADA	W		
C38104A-B.ADA	P	SC = 34	
B38105B-AB.ADA	P	SC = 28	EC = 6
B41101A-B.ADA	P	SC = 19	EC = 5
B41101C.ADA	P	SC = 23	EC = 6
C41101D-B.ADA	P	SC = 33	
B41102A-B.ADA	PS	SC = 13	EC = 3
C41103A-B.ADA	P	SC = 124	
C41103B-B.ADA	P	SC = 124	
C41105A-B.ADA	P	SC = 28	
C41106A-B.ADA	P	SC = 22	
C41107A.ADA	P	SC = 71	
B41201A-B.ADA	P	SC = 58	EC = 21
B41201C.ADA	P	SC = 22	EC = 5
C41201D-B.ADA	P	SC = 36	
B41202A-B.ADA	PS	SC = 12	EC = 3
B41202B-AB.ADA	P	SC = 8	EC = 1
B41202C-B.ADA	P	SC = 8	EC = 1
B41202D-B.ADA	P	SC = 8	EC = 1
C41203A-B.ADA	P	SC = 127	
C41203B-B.ADA	P	SC = 126	
C41204A.ADA	P	SC = 29	
C41205A-B.ADA	P	SC = 30	
C41206A.ADA	P	SC = 29	
C41301A-B.ADA	P	SC = 110	
B41302A.ADA	PS	SC = 9	EC = 2
C41303A-B.ADA	P	SC = 18	
C41303B-B.ADA	P	SC = 17	
C41303C-B.ADA	P	SC = 17	
C41303E-B.ADA	P	SC = 20	
C41303F-B.ADA	P	SC = 19	
C41303G-B.ADA	P	SC = 19	
C41303I-B.ADA	P	SC = 20	
C41303J-B.ADA	P	SC = 19	
C41303K-B.ADA	P	SC = 19	
C41303M-B.ADA	P	SC = 32	
C41303N-B.ADA	P	SC = 31	
C41303O-B.ADA	P	SC = 31	
C41303Q-B.ADA	P	SC = 34	
C41303R-B.ADA	P	SC = 33	
C41303S-B.ADA	P	SC = 33	
C41303U-B.ADA	P	SC = 34	
C41303V-B.ADA	P	SC = 33	
C41303W-B.ADA	P	SC = 33	
C41304A-B.ADA	P	SC = 53	
C41306A-B.ADA	P	SC = 18	
C41306B-B.ADA	P	SC = 32	

C41306C-B.ADA	P	SC = 32	
B44001A.ADA	PS	SC = 62	EC = 17
B44002A-B.ADA	P	SC = 59	EC = 13
B44002B-B.ADA	P	SC = 23	EC = 5
B44002C.ADA	P	SC = 4	EC = 1
C45101A.ADA	P	SC = 56	
C45101B.ADA	P	SC = 35	
C45101C.ADA	P	SC = 26	
C45101E.ADA	P	SC = 35	
C45101G.ADA	P	SC = 55	
C45101H.ADA	P	SC = 34	
C45101I.ADA	P	SC = 23	
B45102A-AB.ADA	P	SC = 38	EC = 18
C45103A-AB.ADA	P	SC = 75	
C45103B-AB.ADA	P	SC = 35	
C45103C-AB.ADA	P	SC = 40	
C45104A.ADA	P	SC = 11	
C45105A-AB.ADA	P	SC = 18	
C45105B-B.ADA	P	SC = 28	
C45106A.ADA	P	SC = 31	
C45201A.ADA	P	SC = 109	
C45201B.ADA	P	SC = 102	
C45202A-AB.ADA	P	SC = 14	
B45203A.ADA	P	SC = 17	EC = 6
B45203B-AB.ADA	P	SC = 17	EC = 6
B45205A-AB.ADA	PS	SC = 29	EC = 12
B45206A-AB.ADA	P	SC = 65	EC = 22
B45206B-B.ADA	P	SC = 9	EC = 3
B45207A-AB.ADA	P	SC = 14	EC = 2
B45207B-B.ADA	P	SC = 37	EC = 6
B45207C-B.ADA	P	SC = 41	EC = 6
B45207D-B.ADA	P	SC = 49	EC = 6
B45207G-B.ADA	P	SC = 15	EC = 3
B45207H-B.ADA	P	SC = 31	EC = 6
B45207I-B.ADA	P	SC = 35	EC = 6
B45207J-B.ADA	P	SC = 41	EC = 6
B45207M-AB.ADA	P	SC = 12	EC = 2
B45207N-AB.ADA	P	SC = 26	EC = 4
B45207O-AB.ADA	P	SC = 29	EC = 4
B45207P-B.ADA	P	SC = 31	EC = 4
B45207S-AB.ADA	P	SC = 14	EC = 2
B45207T-AB.ADA	P	SC = 29	EC = 4
B45207U-AB.ADA	P	SC = 32	EC = 4
B45207V-B.ADA	P	SC = 34	EC = 4
B45208A-AB.ADA	P	SC = 27	EC = 2
B45208B-B.ADA	P	SC = 34	EC = 3
B45208C-B.ADA	P	SC = 32	EC = 4
B45208G-AB.ADA	P	SC = 25	EC = 2
B45208H-B.ADA	P	SC = 29	EC = 3
B45208I-B.ADA	P	SC = 34	EC = 4
B45208M-AB.ADA	P	SC = 20	EC = 2
B45208N-AB.ADA	P	SC = 21	EC = 2

B45208S-AB.ADA	P	SC =	22	EC =	2
B45208T-AB.ADA	P	SC =	36	EC =	4
C45210A.ADA	P	SC =	85		
C45220A.ADA	P	SC =	102		
C45220B.ADA	P	SC =	192		
C45220C.ADA	P	SC =	107		
C45220D.ADA	P	SC =	197		
C45220E-B.ADA	P	SC =	13		
C45241A-B.DEP	P	SC =	52		
C45241B-B.DEP	P	SC =	52		
B45261A-AB.ADA	P	SC =	23	EC =	6
B45261B-AB.ADA	P	SC =	26	EC =	6
B45261C-AB.ADA	P	SC =	9	EC =	2
B45261D-AB.ADA	P	SC =	8	EC =	2
C45274A-AB.ADA	P	SC =	67		
C45274B-AB.ADA	P	SC =	70		
C45274C-AB.ADA	P	SC =	53		
C45321A-B.DEP	P	SC =	117		
C45321B-B.DEP	P	SC =	117		
C45345A-AB.ADA	P	SC =	29		
C45345B-AB.ADA	P	SC =	22		
C45401A.ADA	P	SC =	42		
C45401B.ADA	W				
B45402A.ADA	P	SC =	29	EC =	12
C45421A-B.DEP	P	SC =	22		
C45421B-B.DEP	P	SC =	22		
C45424A-B.DEP	P	SC =	31		
C45424B-B.DEP	P	SC =	31		
C45521A-B.DEP	P	SC =	188		
C45521B-B.DEP	P	SC =	188		
B45522A.ADA	P	SC =	9	EC =	4
B45533A-AB.ADA	P	SC =	7	EC =	2
C45621A.DEP	P	SC =	53		
C45621B.DEP	P	SC =	53		
B48001A-B.ADA	P	SC =	71	EC =	7
B48001B-B.ADA	P	SC =	51	EC =	3
B48001C-AB.ADA	P	SC =	22	EC =	5
B48001D-B.ADA	P	SC =	51	EC =	3
B48002A-B.ADA	PS	SC =	26	EC =	6
B48002B-AB.ADA	P	SC =	17	EC =	2
B48002C-B.ADA	P	SC =	34	EC =	9
B48002D-B.ADA	P	SC =	20	EC =	4
B48002E-AB.ADA	P	SC =	46	EC =	10
B48002F-AB.ADA	P	SC =	33	EC =	6
B48002G-AB.ADA	P	SC =	46	EC =	6
B48002I-B.ADA	P	SC =	24	EC =	4
B48002J-AB.ADA	W				
C48003A-B.ADA	P	SC =	28		
C48003B-B.ADA	P	SC =	29		
C48003C-B.ADA	P	SC =	23		
C48003D-B.ADA	P	SC =	26		
C48003E-B.ADA	P	SC =	32		

C48003F.ADA	P	SC = 16	
C48003G-B.ADA	P	SC = 24	
C48004A-B.ADA	P	SC = 87	
C48005A-B.ADA	P	SC = 17	
C48005B-B.ADA	P	SC = 45	
C48005C-AB.ADA	P	SC = 31	
C48005D-AB.ADA	P	SC = 15	
C4A001A.ADA	P	SC = 49	
C4A002A.ADA	P	SC = 14	
D4A002B.ADA	NA	SC = 14	
C4A003A.ADA	P	SC = 14	
C4A004A.ADA	NA	SC = 16	
D4A004B.ADA	NA	SC = 24	
B4A006A-B.ADA	P	SC = 4	EC = 1
C4A011A.ADA	P	SC = 57	
C4A013A.ADA	P	SC = 14	
B4A016A.ADA	P	SC = 4	EC = 2
B51001A.ADA	PS	SC = 29	EC = 6
C51002A.ADA	P	SC = 28	
B51003A.ADA	PS	SC = 15	EC = 6
C52001A-B.ADA	P	SC = 92	
C52001B.ADA	P	SC = 21	
C52001C.ADA	P	SC = 15	
B52002A-B.ADA	P	SC = 18	EC = 6
B52002B.ADA	P	SC = 16	EC = 9
B52002C.ADA	P	SC = 26	EC = 8
B52002D-AB.ADA	P	SC = 3	EC = 1
B52002E-AB.ADA	PS	SC = 5	EC = 2
B52002F-B.ADA	P	SC = 5	EC = 1
B52002G-AB.ADA	P	SC = 5	EC = 1
B52003A.ADA	PS	SC = 7	EC = 3
B52004A-B.ADA	P	SC = 41	EC = 23
B52004B.ADA	P	SC = 19	EC = 11
B52004C.ADA	P	SC = 16	EC = 9
B52004D.DEP	NA	SC = 10	EC = 3
B52004E.DEP	P	SC = 10	EC = 3
C52005A.ADA	P	SC = 47	
C52005B.ADA	P	SC = 27	
C52005C.ADA	P	SC = 17	
C52005D.ADA	P	SC = 53	
C52005E.ADA	P	SC = 39	
C52005F.ADA	P	SC = 23	
B52006A.ADA	PS	SC = 6	EC = 3
C52007A-B.ADA	P	SC = 87	
C52008A.ADA	P	SC = 17	
C52008B-B.ADA	P	SC = 32	
C52009A-B.ADA	P	SC = 18	
C52009B-B.ADA	P	SC = 18	
C52010A.ADA	P	SC = 69	
C52011A-B.ADA	P	SC = 50	
C52011B-AB.ADA	P	SC = 55	
C52102A-AB.ADA	P	SC = 95	

C52102B-AB.ADA	P	SC = 104		
C52103A.ADA	P	SC = 56		
C52103B.ADA	P	SC = 20		
C52103C.ADA	P	SC = 28		
C52103F.ADA	P	SC = 45		
C52103G.ADA	P	SC = 21		
C52103H.ADA	P	SC = 28		
C52103K.ADA	P	SC = 56		
C52103L.ADA	P	SC = 20		
C52103M.ADA	P	SC = 28		
C52103P.ADA	P	SC = 45		
C52103Q-AB.ADA	P	SC = 21		
C52103R-AB.ADA	P	SC = 28		
C52103X-AB.ADA	P	SC = 28		
C52103Y.ADA	P	SC = 17		
C52104A.ADA	P	SC = 56		
C52104B.ADA	P	SC = 23		
C52104C.ADA	P	SC = 30		
C52104F-AB.ADA	P	SC = 44		
C52104G.ADA	P	SC = 23		
C52104H.ADA	P	SC = 31		
C52104K.ADA	P	SC = 56		
C52104L.ADA	P	SC = 23		
C52104M.ADA	P	SC = 30		
C52104P-AB.ADA	P	SC = 44		
C52104Q.ADA	P	SC = 23		
C52104R.ADA	P	SC = 31		
C52104X-B.ADA	P	SC = 25		
C52104Y.ADA	P	SC = 21		
B53001A-AB.ADA	P	SC = 20	EC = 1	
B53001B-AB.ADA	P	SC = 10	EC = 1	
B53002A-AB.ADA	P	SC = 9	EC = 1	
B53002B-AB.ADA	P	SC = 11	EC = 1	
B53003A.ADA	P	SC = 17	EC = 4	
B53004A-AB.ADA	P	SC = 36	EC = 11	
C53004B-B.ADA	P	SC = 21		
C53005A.ADA	P	SC = 79		
C53005B.ADA	P	SC = 79		
C53006A.ADA	P	SC = 57		
C53006B.ADA	P	SC = 57		
C53007A.ADA	P	SC = 68		
C53008A.ADA	P	SC = 66		
B53009A.ADA	PS	SC = 20	EC = 3	
B54A01A-AB.ADA	P	SC = 4	EC = 1	
B54A01B-AB.ADA	P	SC = 4	EC = 1	
B54A01C-AB.ADA	P	SC = 7	EC = 1	
B54A01D-AB.ADA	P	SC = 6	EC = 1	
B54A01E-AB.ADA	P	SC = 7	EC = 1	
B54A01F-AB.ADA	P	SC = 4	EC = 1	
B54A01G-AB.ADA	P	SC = 4	EC = 1	
B54A01H-AB.ADA	P	SC = 4	EC = 1	
B54A01I-AB.ADA	P	SC = 5	EC = 1	

B54A01J-AB.ADA	P	SC	=	4	EC	= 1
B54A01K-AB.ADA	P	SC	=	6	EC	= 1
B54A01L-AB.ADA	P	SC	=	20	EC	= 6
C54A03A.ADA	P	SC	=	48		
C54A04A-AB.ADA	P	SC	=	21		
B54A05A.ADA	P	SC	=	20	EC	= 3
B54A05B.ADA	P	SC	=	5	EC	= 1
C54A06A-AB.ADA	P	SC	=	15		
C54A07A-AB.ADA	P	SC	=	26		
B54A08A-B.ADA	P	SC	=	14	EC	= 2
B54A20A.ADA	P	SC	=	63	EC	= 21
B54A21A-AB.ADA	P	SC	=	24	EC	= 6
C54A22A-AB.ADA	P	SC	=	15		
C54A23A-B.ADA	P	SC	=	12		
C54A24A.ADA	P	SC	=	21		
C54A24B.ADA	P	SC	=	13		
B54A25A-B.ADA	P	SC	=	13	EC	= 5
C54A26A.ADA	P	SC	=	19		
C54A27A-AB.ADA	W					
B54A27B-AB.ADA	P	SC	=	6	EC	= 1
B54A27C-AB.ADA	P	SC	=	6	EC	= 1
B54A27D-AB.ADA	P	SC	=	6	EC	= 1
C54A41A.ADA	P	SC	=	42		
C54A42A.ADA	P	SC	=	93		
C54A42B.ADA	P	SC	=	93		
C54A42C.ADA	P	SC	=	53		
C54A42D.ADA	P	SC	=	41		
C54A42E.ADA	P	SC	=	53		
C54A42F.ADA	P	SC	=	57		
C54A42G.ADA	P	SC	=	53		
A54B01A-B.ADA	P	SC	=	37		
B54B01B-B.TST	P	SC	=	29	EC	= 6
B54B01C-B.ADA	P	SC	=	15	EC	= 2
A54B02A-B.ADA	P	SC	=	80		
B54B02B-B.ADA	P	SC	=	76	EC	= 17
B54B02C-B.ADA	P	SC	=	26	EC	= 3
B54B02D-B.ADA	P	SC	=	41	EC	= 5
B54B04A-AB.ADA	P	SC	=	26	EC	= 4
B54B04B-AB.ADA	P	SC	=	39	EC	= 5
B54B05A-AB.ADA	P	SC	=	25	EC	= 6
B55A01A-AB.ADA	PS	SC	=	43	EC	= 14
B55A01B-AB.ADA	P	SC	=	7	EC	= 1
B55A01C-AB.ADA	P	SC	=	7	EC	= 1
B55A01D-AB.ADA	P	SC	=	7	EC	= 1
B55A01E-AB.ADA	P	SC	=	7	EC	= 1
B55A01F-AB.ADA	P	SC	=	4	EC	= 1
B55A01G-AB.ADA	P	SC	=	4	EC	= 1
B55A01H-AB.ADA	P	SC	=	4	EC	= 1
B55A01I-AB.ADA	P	SC	=	4	EC	= 1
B55A01J-AB.ADA	P	SC	=	4	EC	= 1
B55A01K-AB.ADA	P	SC	=	4	EC	= 1
B55A01L-AB.ADA	P	SC	=	4	EC	= 1

B55A01M-AB.ADA	P	SC = 5	EC = 1
B55A01N-AB.ADA	P	SC = 5	EC = 1
B55A01O-AB.ADA	P	SC = 5	EC = 1
B55A01P-AB.ADA	P	SC = 4	EC = 1
B55A01Q-AB.ADA	P	SC = 4	EC = 1
B55A01R-AB.ADA	P	SC = 4	EC = 1
B55A01S-AB.ADA	P	SC = 4	EC = 1
B55A01T-AB.ADA	P	SC = 7	EC = 1
B55A01U-AB.ADA	P	SC = 7	EC = 1
B55A01V-AB.ADA	P	SC = 7	EC = 1
D55A03A-AB.ADA	P	SC = 21	
D55A03B-AB.ADA	P	SC = 24	
D55A03C-AB.ADA	P	SC = 32	
D55A03D-AB.ADA	P	SC = 34	
D55A03E-AB.ADA	P	SC = 53	
D55A03F-AB.ADA	P	SC = 56	
D55A03G-AB.ADA	P	SC = 96	
D55A03H-AB.ADA	P	SC = 98	
B55B01A-AB.ADA	P	SC = 9	EC = 3
C55B03A-AB.ADA	P	SC = 16	
C55B04A-AB.ADA	P	SC = 27	
C55B05A-AB.ADA	P	SC = 114	
C55B06A.ADA	P	SC = 87	
C55B06B.ADA	P	SC = 42	
C55B07A-AB.DEP	P	SC = 40	
C55B07B-AB.DEP	P	SC = 40	
C55B08A-B.ADA	P	SC = 29	
C55B09A-AB.ADA	P	SC = 33	
B55B09B-AB.ADA	P	SC = 26	EC = 12
B55B09C-AB.DEP	P	SC = 26	EC = 12
B55B09D-AB.DEP	P	SC = 26	EC = 12
A55B12A-AB.ADA	P	SC = 45	
B55B12B-B.ADA	P	SC = 40	EC = 7
B55B12C-AB.ADA	P	SC = 45	EC = 7
A55B13A-AB.ADA	P	SC = 34	
A55B14A-AB.ADA	W		
C55B15A-B.ADA	P	SC = 73	
C55B16A-AB.DEP	P	SC = 23	
B55B18A-B.ADA	P	SC = 7	EC = 2
C55C01A-B.ADA	P	SC = 25	
C55C02A.ADA	P	SC = 9	
C55C02B-AB.ADA	P	SC = 16	
C55C03A-AB.ADA	P	SC = 87	
C55C03B-AB.ADA	P	SC = 87	
C55D01A-AB.ADA	P	SC = 46	
B56001A-AB.ADA	PS	SC = 62	EC = 15
D56001B-AB.ADA	P	SC = 75	
C56002A.ADA	P	SC = 40	
B57001A.ADA	P	SC = 21	EC = 5
B57001B-B.ADA	P	SC = 45	EC = 6
B57001C.ADA	P	SC = 28	EC = 5
B57001D.ADA	P	SC = 38	EC = 10

C57002A.ADA	P	SC = 44		
C57003A.ADA	P	SC = 98		
C57004A.ADA	P	SC = 56		
C57004B.ADA	P	SC = 56		
C57004C-B.ADA	P	SC = 27		
B58001A.ADA	P	SC = 11	EC = 2	
B58002A-B.ADA	P	SC = 11	EC = 2	
B58003A-B.ADA	P	SC = 10	EC = 1	
C58004A.ADA	P	SC = 26		
C58004B.ADA	P	SC = 20		
C58004C.ADA	W			
C58005A-AB.ADA	P	SC = 38		
C58006A-AB.ADA	P	SC = 32		
B59001A.ADA	P	SC = 43	EC = 27	
C59001B.ADA	P	SC = 39		
B59001C.ADA	P	SC = 34	EC = 21	
B59001D.ADA	P	SC = 42	EC = 16	
B59001E.ADA	P	SC = 28	EC = 18	
B59001F.ADA	P	SC = 51	EC = 25	
B59001G-AB.ADA	P	SC = 14	EC = 2	
C59002A.ADA	P	SC = 30		
C59002B.ADA	P	SC = 55		
C59002C-B.ADA	P	SC = 52		
B59002D-AB.ADA	P	SC = 16	EC = 2	
B61001A.ADA	PS	SC = 26	EC = 13	
B61003A.ADA	P	SC = 7	EC = 1	
C61003B.ADA	P	SC = 28		
B61005A.ADA	W			
B61005B.ADA	W			
C61008A-B.ADA	P	SC = 67		
C61009A-B.ADA	P	SC = 52		
C61010A-AB.ADA	P	SC = 87		
B62001A.ADA	P	SC = 45	EC = 18	
B62001B-AB.ADA	P	SC = 5	EC = 2	
B62001C-AB.ADA	P	SC = 3	EC = 2	
B62001D-AB.ADA	P	SC = 5	EC = 2	
C62002A-B.ADA	P	SC = 67		
C62003A-B.ADA	P	SC = 71		
C62004A.ADA	P	SC = 15		
B63001A.ADA	P	SC = 10	EC = 4	
C63004A.ADA	W			
B64001A-B.ADA	PS	SC = 29	EC = 5	
B64002A.ADA	P	SC = 27	EC = 9	
C64002B-B.ADA	P	SC = 15		
B64003A.ADA	P	SC = 26	EC = 9	
B64004A.ADA	PS	SC = 29	EC = 10	
C64004B.ADA	P	SC = 43		
B64005A-AB.ADA	P	SC = 73	EC = 16	
B64006A.ADA	P	SC = 10	EC = 2	
C64007A.ADA	P	SC = 18		
B64101A-B.ADA	P	SC = 166	EC = 50	
C64104A-AB.ADA	P	SC = 53		

C64104B-AB.ADA	P	SC = 46	
C64104C-AB.ADA	P	SC = 58	
C64104D-AB.ADA	P	SC = 24	
C64104E-AB.ADA	P	SC = 17	
C64104F-AB.ADA	P	SC = 16	
C64104G-AB.ADA	P	SC = 24	
C64104H.ADA	P	SC = 28	
C64104I.ADA	P	SC = 18	
C64104J.ADA	P	SC = 15	
C64104K-AB.ADA	P	SC = 19	
C64104L-AB.ADA	P	SC = 33	
C64104M-AB.ADA	P	SC = 23	
C64105A.ADA	P	SC = 15	
C64105B-AB.ADA	P	SC = 32	
C64105C-AB.ADA	P	SC = 33	
C64105D-AB.ADA	P	SC = 31	
C64106A-B.ADA	W		
C64106B-B.ADA	P	SC = 83	
C64106C-B.ADA	P	SC = 115	
C64106D-B.ADA	P	SC = 97	
C64107A-B.ADA	P	SC = 25	
C64108A-B.ADA	P	SC = 74	
B65001A.ADA	P	SC = 13	EC = 4
B66001A-B.ADA	P	SC = 67	EC = 12
B66001C.ADA	P	SC = 31	EC = 6
C66002A-B.ADA	P	SC = 29	
C66002C.ADA	P	SC = 27	
C66002D.ADA	P	SC = 23	
C66002E-AB.ADA	P	SC = 21	
C66002F.ADA	P	SC = 20	
C66002G-B.ADA	P	SC = 19	
B67001A-B.ADA	PS	SC = 98	EC = 41
B67001B-AB.ADA	P	SC = 75	EC = 11
C67002A.ADA	P	SC = 145	
C67003A-B.ADA	P	SC = 82	
C67003B.ADA	P	SC = 70	
C67003C-AB.ADA	P	SC = 42	
C67003D-B.ADA	P	SC = 54	
C67003E-AB.ADA	P	SC = 22	
B71001C.ADA	P	SC = 6	EC = 1
A72001A-AB.ADA	P	SC = 14	
C72001B-AB.ADA	P	SC = 29	
B73001A.ADA	P	SC = 55	EC = 6
B73001B-AB.ADA	P	SC = 34	EC = 6
B73001C.ADA	P	SC = 19	EC = 2
B73006A.ADA	P	SC = 10	EC = 2
B74001A.ADA	W		
B74002A-B.ADA	P	SC = 79	EC = 21
A74004A.ADA	P	SC = 95	
A74004B.ADA	P	SC = 93	
A74004C-AB.ADA	P	SC = 85	
A74006A-AB.ADA	P	SC = 64	

C74007A.ADA	P	SC = 76	
C74007B-AB.ADA	P	SC = 60	
C74008A.ADA	P	SC = 45	
C74009A-B.ADA	P	SC = 29	
B74101A-B.ADA	P	SC = 102	EC = 16
B74102B-B.ADA	P	SC = 40	EC = 18
C74203B-B.ADA	P	SC = 41	
B74301B-AB.ADA	W		
B74301C-AB.ADA	W		
B83A01A.ADA	P	SC = 16	EC = 6
B83A01B.ADA	W		
B83A01C.ADA	P	SC = 21	EC = 5
A83A02A.ADA	P	SC = 35	
A83A02B.ADA	P	SC = 30	
A83A05A-AB.ADA	P	SC = 34	
B83A06A.ADA	W		
B83A06B.ADA	P	SC = 37	EC = 15
B83A06H.ADA	W		
B83B01A-AB.ADA	P	SC = 5	EC = 1
C83B02A.ADA	P	SC = 25	
C83B02B.ADA	P	SC = 31	
B83B02C.ADA	P	SC = 10	EC = 2
B83C01A-AB.ADA	P	SC = 38	EC = 15
C83C01B.ADA	P	SC = 37	
A83C01C.ADA	P	SC = 20	
A83C01D.ADA	P	SC = 24	
A83C01E.ADA	P	SC = 33	
A83C01F.ADA	P	SC = 42	
A83C01G.ADA	P	SC = 52	
A83C01H.ADA	P	SC = 22	
A83C01I.ADA	P	SC = 26	
A83C01J.ADA	P	SC = 18	
B83C02A.ADA	P	SC = 27	EC = 8
C83E02A.ADA	P	SC = 29	
C83E02B.ADA	P	SC = 16	
B83E02C-B.ADA	P	SC = 12	EC = 2
C83E03A.ADA	P	SC = 23	
C83E04A.ADA	P	SC = 37	
C83F01A.ADA	P	SC = 24	
C83F01B.ADA	P	SC = 30	
C83F01C0.ADA	PC	SC = 10	
C83F01C1.ADA	PC	SC = 8	
C83F01C2M.ADA	P	SC = 8	
C83F01D0M.ADA	P	SC = 22	
C83F01D1.ADA	PC	SC = 7	
B83F02A.ADA	P	SC = 45	EC = 19
B83F02B.ADA	P	SC = 22	EC = 13
C83F03A.ADA	P	SC = 40	
C83F03B.ADA	P	SC = 66	
C83F03C0.ADA	PC	SC = 7	
C83F03C1.ADA	PC	SC = 27	
C83F03C2M.ADA	P	SC = 8	

C83F03D0M.ADA	P	SC = 18	
C83F03D1.ADA	PC	SC = 41	
B84001A-AB.ADA	P	SC = 28	EC = 10
B86001A1.ADA	PC	SC = 3	EC = 0
B86001A2M.ADA	P	SC = 3	EC = 1
B86001B0M-B.ADA	P	SC = 4	EC = 0
B86001BA-B.ADA	P	SC = 3	EC = 1
B86001BB-B.ADA	P	SC = 3	EC = 1
B86001BC-B.ADA	P	SC = 3	EC = 1
B86001BD-B.ADA	P	SC = 3	EC = 1
B86001BE-B.ADA	P	SC = 3	EC = 1
B86001BF-B.ADA	P	SC = 3	EC = 1
B86001BG-B.ADA	P	SC = 3	EC = 1
B86001BH-B.ADA	P	SC = 3	EC = 1
B86001BI-B.ADA	P	SC = 3	EC = 1
B86001BJ-B.ADA	P	SC = 3	EC = 1
B86001BK-B.ADA	P	SC = 3	EC = 1
B86001BL-B.ADA	P	SC = 3	EC = 1
B86001BM-B.ADA	P	SC = 3	EC = 1
B86001BO-B.ADA	P	SC = 3	EC = 1
B86001BU-B.ADA	P	SC = 3	EC = 1
B86001BV-B.ADA	P	SC = 2	EC = 1
B86001BW-B.ADA	P	SC = 2	EC = 1
B86001BX-B.ADA	P	SC = 2	EC = 1
B86001C0M-AB.DEP	P	SC = 4	EC = 0
B86001CP-AB.DEP	NA	SC = 3	EC = 1
B86001CQ-AB.DEP	NA	SC = 3	EC = 1
B86001CR-AB.DEP	P	SC = 3	EC = 1
B86001CS-AB.DEP	P	SC = 3	EC = 1
B86001D0M-AB.TST	PC	SC = 4	EC = 0
B86001DT-AB.TST	NA	SC = 3	EC = 1
C86001E-B.ADA	F	SC = 41	
C86002A0.ADA	PC	SC = 3	
C86002A1.ADA	PC	SC = 5	
C86002A2M.ADA	P	SC = 29	
C86002B1.ADA	PC	SC = 4	
C86002B2M.ADA	P	SC = 27	
C86003A-B.ADA	P	SC = 34	
B91001A-AB.ADA	P	SC = 6	EC = 1
B91001B-AB.ADA	P	SC = 5	EC = 1
B91001C-AB.ADA	P	SC = 3	EC = 1
B91001D-AB.ADA	P	SC = 7	EC = 3
B91001E-AB.ADA	P	SC = 7	EC = 3
B91001F-AB.ADA	P	SC = 10	EC = 4
B91001G-B.ADA	P	SC = 7	EC = 1
B91002A.ADA	W		
C92002A.ADA	P	SC = 19	
C92003A.ADA	P	SC = 18	
C93001A-B.ADA	P	SC = 75	
C93002A-B.ADA	P	SC = 76	
C93003A-B.ADA	P	SC = 105	
C94001A-B.ADA	P	SC = 52	

C94002A-B.ADA	P	SC = 74	
C94002B-B.ADA	P	SC = 79	
C94003A-B.ADA	P	SC = 65	
C94004A-B.ADA	P	SC = 36	
C94005A-B.ADA	P	SC = 29	
C94005B-B.ADA	P	SC = 57	
C94006A-B.ADA	P	SC = 82	
C94007A-B.ADA	P	SC = 73	
C94007B-B.ADA	P	SC = 83	
B95001A.ADA	P	SC = 49	EC = 18
B95001B-AB.ADA	P	SC = 28	EC = 12
B95002A.ADA	P	SC = 25	EC = 6
B95004A-AB.ADA	P	SC = 27	EC = 6
B95004B-AB.ADA	P	SC = 38	EC = 8
A95005A.ADA	P	SC = 21	
B95006A.ADA	F	SC = 22	EC = 6
B95006B.ADA	P	SC = 12	EC = 3
B95007A.ADA	PS	SC = 40	EC = 21
C95008A.ADA	P	SC = 145	
C95009A.ADA	P	SC = 50	
C95009B.ADA	P	SC = 19	
C95010A.ADA	P	SC = 29	
C95011A.ADA	P	SC = 16	
C95012A-B.ADA	P	SC = 38	
C95013A-B.ADA	P	SC = 30	
B97101A-AB.ADA	P	SC = 21	EC = 7
B97101B-AB.ADA	P	SC = 10	EC = 1
B97101C-AB.ADA	P	SC = 11	EC = 1
B97101D-AB.ADA	P	SC = 11	EC = 1
B97101E-AB.ADA	P	SC = 13	EC = 4
B97102A-AB.ADA	P	SC = 29	EC = 13
B97102B-AB.ADA	P	SC = 10	EC = 2
B97102C-AB.ADA	P	SC = 11	EC = 2
B97102D-AB.ADA	P	SC = 12	EC = 2
B97102E-AB.ADA	P	SC = 11	EC = 2
B97102F-AB.ADA	P	SC = 10	EC = 1
B97102G-AB.ADA	P	SC = 10	EC = 1
B97102H-AB.ADA	P	SC = 12	EC = 2
B97102I-AB.ADA	P	SC = 9	EC = 1
B97103A-AB.ADA	P	SC = 19	EC = 3
B97103B-AB.ADA	P	SC = 14	EC = 1
B97103D-AB.ADA	P	SC = 16	EC = 1
B97103E-AB.ADA	P	SC = 13	EC = 3
B97104A-AB.ADA	P	SC = 3	EC = 1
B97104B-AB.ADA	P	SC = 7	EC = 1
B97104C-AB.ADA	P	SC = 11	EC = 1
B97104D-AB.ADA	P	SC = 12	EC = 1
B97104E-AB.ADA	P	SC = 13	EC = 1
B97104F-AB.ADA	P	SC = 15	EC = 1
B97104G-AB.ADA	P	SC = 9	EC = 1
A97106A-AB.ADA	P	SC = 19	
B97107A-AB.ADA	P	SC = 15	EC = 2

B97108A-AB.ADA	P	SC	=	12	EC	= 1
B97108B-AB.ADA	P	SC	=	12	EC	= 1
B97109A-AB.ADA	P	SC	=	12	EC	= 1
B97110A-AB.ADA	P	SC	=	17	EC	= 1
B97110B-AB.ADA	P	SC	=	17	EC	= 1
B97111A-AB.ADA	P	SC	=	18	EC	= 1
C97113A-B.ADA	P	SC	=	43		
C97114A-B.ADA	W					
C97115A-B.ADA	W					
C97201A-AB.ADA	P	SC	=	38		
C97201D-AB.ADA	P	SC	=	20		
C97201E-AB.ADA	P	SC	=	22		
C97201G-AB.ADA	P	SC	=	35		
C97201H-AB.ADA	P	SC	=	35		
C97201X-AB.ADA	P	SC	=	37		
C97202A-AB.ADA	P	SC	=	30		
C97203A-AB.ADA	P	SC	=	25		
C97203B-AB.ADA	P	SC	=	28		
C97204A-B.ADA	P	SC	=	29		
C97303A-AB.ADA	P	SC	=	27		
C97303B-AB.ADA	P	SC	=	30		
C97304A-B.ADA	P	SC	=	30		
B99001A-AB.ADA	P	SC	=	11	EC	= 1
B99001B-B.ADA	P	SC	=	10	EC	= 1
B99002A-B.ADA	P	SC	=	16	EC	= 2
B99002B-B.ADA	P	SC	=	20	EC	= 1
B99002C-B.ADA	P	SC	=	23	EC	= 4
B99003A-AB.ADA	PS	SC	=	17	EC	= 3
B9A001A-AB.ADA	P	SC	=	9	EC	= 1
B9A001B-AB.ADA	P	SC	=	12	EC	= 1
C9A003A-B.ADA	P	SC	=	23		
C9A004A-B.ADA	P	SC	=	23		
C9A005A-B.ADA	P	SC	=	66		
C9A006A-B.ADA	P	SC	=	51		
C9A007A-B.ADA	P	SC	=	87		
CA1002A0-B.ADA	PC	SC	=	2		
CA1002A1-B.ADA	PC	SC	=	5		
CA1002A2-B.ADA	PC	SC	=	4		
CA1002A3M-B.ADA	P	SC	=	46		
CA1002A4-B.ADA	PC	SC	=	3		
CA1002A5-B.ADA	PC	SC	=	2		
CA1002A6-B.ADA	PC	SC	=	3		
CA1002A7-B.ADA	PC	SC	=	3		
CA1002A8-B.ADA	PC	SC	=	4		
CA1002A9-B.ADA	PC	SC	=	3		
CA1003A.ADA	F	SC	=	20		
CA1003B.ADA	F	SC	=	17		
CA1004A.ADA	P	SC	=	19		
CA1005A.ADA	F	SC	=	17		
CA1006A-AB.ADA	P	SC	=	33		
CA1008A0.ADA	PC	SC	=	3		
CA1008A1M.ADA	P	SC	=	9		

CA1009A0.ADA	PC	SC	=	1		
CA1009A1.ADA	PC	SC	=	2		
CA1009A2.ADA	PC	SC	=	1		
CA1009A3.ADA	PC	SC	=	2		
CA1009A4M.ADA	P	SC	=	11		
CA1012A0-B.DEP	PC	SC	=	2		
CA1012A1-B.DEP	PC	SC	=	2		
CA1012A2-B.DEP	PC	SC	=	2		
CA1012A3-B.DEP	PC	SC	=	2		
CA1012A4M-B.DEP	P	SC	=	15		
CA1012B0-B.ADA	PC	SC	=	4		
CA1012B2-B.ADA	PC	SC	=	4		
CA1012B4M-B.ADA	P	SC	=	15		
CA1013A0-AB.ADA	PC	SC	=	5		
CA1013A1-AB.ADA	PC	SC	=	4		
CA1013A2-AB.ADA	PC	SC	=	4		
CA1013A3-AB.ADA	PC	SC	=	2		
CA1013A4-AB.ADA	PC	SC	=	2		
CA1013A5-AB.ADA	PC	SC	=	2		
CA1013A6M-AB.ADA	P	SC	=	14		
CA1014A0M-AB.ADA	P	SC	=	25		
CA1014A1-AB.ADA	PC	SC	=	2		
CA1014A2-AB.ADA	PC	SC	=	4		
CA1014A3-AB.ADA	PC	SC	=	2		
CA1016A0.ADA	PC	SC	=	2		
CA1016A1.ADA	PC	SC	=	4		
CA1016A2M.ADA	P	SC	=	12		
CA1020A0-B.ADA	PC	SC	=	7		
CA1020A1-B.ADA	PC	SC	=	5		
CA1020A2-B.ADA	PC	SC	=	7		
CA1020A3-B.ADA	PC	SC	=	5		
CA1020A4-B.ADA	PC	SC	=	8		
CA1020A5-B.ADA	PC	SC	=	4		
CA1020A6-B.ADA	PC	SC	=	8		
CA1020A7-B.ADA	PC	SC	=	4		
CA1020A8M-B.ADA	P	SC	=	18		
BA1020B0-B.ADA	PC	SC	=	4	EC	= 0
BA1020B1-B.ADA	PC	SC	=	2	EC	= 0
BA1020B2-B.ADA	PC	SC	=	3	EC	= 0
BA1020B3-B.ADA	PC	SC	=	4	EC	= 0
BA1020B4-B.ADA	PC	SC	=	2	EC	= 0
BA1020B5-B.ADA	PC	SC	=	2	EC	= 0
BA1020B6M-B.ADA	P	SC	=	7	EC	= 2
BA1101A-AB.ADA	P	SC	=	6	EC	= 2
BA1101B0M.ADA	P	SC	=	6	EC	= 0
BA1101B1.ADA	PC	SC	=	2	EC	= 0
BA1101B2.ADA	PC	SC	=	3	EC	= 1
BA1101B3.ADA	PC	SC	=	3	EC	= 0
BA1101B4.ADA	PC	SC	=	4	EC	= 1
BA1101C0.ADA	PC	SC	=	2	EC	= 0
BA1101C1M.ADA	P	SC	=	3	EC	= 1
BA1101D.ADA	P	SC	=	4	EC	= 1

BA1101E.ADA	P	SC =	4	EC =	1
BA1101F0-AB.ADA	W				
BA1101F1M-AB.ADA	W				
BA1101H0-B.ADA	PC	SC =	2	EC =	0
BA1101H1M-B.ADA	P	SC =	4	EC =	1
CA1105A0.ADA	PC	SC =	2		
CA1105A1M.ADA	P	SC =	8		
CA1105B0.ADA	PC	SC =	2		
CA1105B1.ADA	PC	SC =	2		
CA1105B2.ADA	PC	SC =	2		
CA1105B3M.ADA	P	SC =	14		
CA1105B4.ADA	PC	SC =	4		
CA1105B5.ADA	PC	SC =	13		
CA1107A0.ADA	PC	SC =	2		
CA1107A1M.ADA	P	SC =	9		
CA1107A2.ADA	PC	SC =	7		
BA2001A-AB.ADA	P	SC =	10	EC =	3
BA2001B.ADA	P	SC =	4	EC =	2
BA2001C.ADA	P	SC =	6	EC =	2
BA2001D.ADA	P	SC =	3	EC =	1
BA2001E.ADA	P	SC =	8	EC =	2
BA2001F0M.ADA	P	SC =	3	EC =	0
BA2001F1.ADA	PC	SC =	3	EC =	0
BA2001F2.ADA	PC	SC =	2	EC =	1
BA2001G0M.ADA	P	SC =	3	EC =	0
BA2001G1.ADA	PC	SC =	2	EC =	1
CA2001H0-B.ADA	PC	SC =	5		
CA2001H1-B.ADA	PC	SC =	2		
CA2001H2-B.ADA	PC	SC =	4		
CA2001H3M-B.ADA	P	SC =	14		
BA2002A0M.ADA	P	SC =	4	EC =	0
BA2002A1.ADA	PC	SC =	7	EC =	0
BA2002A2.ADA	PC	SC =	7	EC =	3
CA2003A0M.ADA	P	SC =	10		
CA2003A1.ADA	PC	SC =	3		
BA2003B0M.ADA	P	SC =	6	EC =	0
BA2003B1.ADA	PC	SC =	2	EC =	1
CA2004A0M.ADA	P	SC =	11		
CA2004A1.ADA	PC	SC =	3		
CA2004A2.ADA	PC	SC =	7		
CA2007A0M-AB.ADA	P	SC =	17		
CA2007A1-AB.ADA	PC	SC =	3		
CA2007A2-AB.ADA	PC	SC =	3		
CA2007A3-AB.ADA	PC	SC =	3		
CA2008A0M-B.ADA	P	SC =	23		
CA2008A1-B.ADA	PC	SC =	2		
CA2008A2-B.ADA	PC	SC =	2		
BA3001A0M-AB.ADA	P	SC =	2	EC =	0
BA3001A1-AB.ADA	PC	SC =	2	EC =	1
BA3001A2-AB.ADA	PC	SC =	2	EC =	1
BA3001A3-AB.ADA	PC	SC =	2	EC =	1
BA3001B0M.ADA	P	SC =	2	EC =	0

BA3001B1.ADA	PC	SC	=	2	EC	= 1
BA3001C0M-AB.ADA	P	SC	=	3	EC	= 0
BA3001C1-AB.ADA	PC	SC	=	3	EC	= 1
BA3001D0M.ADA	P	SC	=	4	EC	= 1
BA3001D1.ADA	PC	SC	=	3	EC	= 1
BA3001E0M-AB.ADA	P	SC	=	5	EC	= 0
BA3001E1-AB.ADA	PC	SC	=	2	EC	= 1
BA3001E2-AB.ADA	PC	SC	=	2	EC	= 1
BA3001E3-AB.ADA	PC	SC	=	2	EC	= 1
BA3001F0M-AB.ADA	P	SC	=	6	EC	= 0
BA3001F1-AB.ADA	PC	SC	=	3	EC	= 1
BA3001F2-AB.ADA	PC	SC	=	3	EC	= 1
BA3001F3-AB.ADA	PC	SC	=	3	EC	= 1
CA3002A0-B.ADA	PC	SC	=	5		
CA3002A1-B.ADA	PC	SC	=	3		
CA3002A2M-B.ADA	P	SC	=	9		
CA3002A3-B.ADA	PC	SC	=	3		
LA3004A0-AB.DEP	PC	SC	=	3		
LA3004A1-AB.DEP	PC	SC	=	3		
LA3004A2-AB.DEP	PC	SC	=	4		
LA3004A3-AB.DEP	PC	SC	=	5		
LA3004A4-AB.DEP	PC	SC	=	5		
LA3004A5-AB.DEP	PC	SC	=	3		
LA3004A6M-AB.DEP	NA	SC	=	7		
LA3004B0-B.DEP	PC	SC	=	2		
LA3004B1-B.DEP	PC	SC	=	2		
LA3004B2-B.DEP	PC	SC	=	4		
LA3004B3-B.DEP	PC	SC	=	3		
LA3004B4-B.DEP	PC	SC	=	7		
LA3004B5-B.DEP	PC	SC	=	2		
LA3004B6M-B.DEP	NA	SC	=	7		
LA3006A0-AB.ADA	PC	SC	=	2		
LA3006A1-AB.ADA	PC	SC	=	4		
LA3006A2-AB.ADA	PC	SC	=	3		
LA3006A3-AB.ADA	PC	SC	=	3		
LA3006A4-AB.ADA	PC	SC	=	5		
LA3006A5-AB.ADA	PC	SC	=	2		
LA3006A6M-AB.ADA	P	SC	=	7		
LA3006B0.ADA	PC	SC	=	4		
LA3006B1.ADA	PC	SC	=	3		
LA3006B2.ADA	PC	SC	=	3		
LA3006B3.ADA	PC	SC	=	3		
LA3006B4M.ADA	P	SC	=	6		
CA3006C0-B.ADA	PC	SC	=	2		
CA3006C1-B.ADA	PC	SC	=	2		
CA3006C2-B.ADA	PC	SC	=	3		
CA3006C3-B.ADA	PC	SC	=	4		
CA3006C4-B.ADA	PC	SC	=	3		
CA3006C5M-B.ADA	P	SC	=	7		
LA3007A0.ADA	PC	SC	=	2		
LA3007A1.ADA	PC	SC	=	4		
LA3007A2.ADA	PC	SC	=	2		

LA3007A3.ADA	PC	SC	=	4
LA3007A4M.ADA	P	SC	=	6
LA3007B0-B.ADA	PC	SC	=	1
LA3007B1-B.ADA	PC	SC	=	5
LA3007B2-B.ADA	PC	SC	=	4
LA3007B3-B.ADA	PC	SC	=	5
LA3007B4-B.ADA	PC	SC	=	3
LA3007B5-B.ADA	PC	SC	=	2
LA3007B6-B.ADA	PC	SC	=	1
LA3007B7-B.ADA	PC	SC	=	4
LA3007B8M-B.ADA	P	SC	=	7
LA3008A0.ADA	PC	SC	=	4
LA3008A1.ADA	PC	SC	=	2
LA3008A2.ADA	PC	SC	=	2
LA3008A3.ADA	PC	SC	=	5
LA3008A4.ADA	PC	SC	=	2
LA3008A5M.ADA	P	SC	=	6
LA3008B0.ADA	PC	SC	=	4
LA3008B1.ADA	PC	SC	=	5
LA3008B2.ADA	PC	SC	=	3
LA3008B3.ADA	PC	SC	=	3
LA3008B4.ADA	PC	SC	=	6
LA3008B5.ADA	PC	SC	=	3
LA3008B6M.ADA	P	SC	=	6
LA5001A0-B.ADA	PC	SC	=	2
LA5001A1-B.ADA	PC	SC	=	2
LA5001A2-B.ADA	PC	SC	=	2
LA5001A3-B.ADA	PC	SC	=	6
LA5001A4-B.ADA	PC	SC	=	6
LA5001A5-B.ADA	PC	SC	=	5
LA5001A6M-B.ADA	P	SC	=	7
CA5002A-B.ADA	P	SC	=	36
CA5002B0-B.ADA	PC	SC	=	3
CA5002B1-B.ADA	PC	SC	=	1
CA5002B2-B.ADA	PC	SC	=	2
CA5002B3-B.ADA	PC	SC	=	2
CA5002B4-B.ADA	PC	SC	=	6
CA5002B5-B.ADA	PC	SC	=	8
CA5002B6-B.ADA	PC	SC	=	7
CA5002B7M-B.ADA	P	SC	=	7
CA5003A0.ADA	PC	SC	=	12
CA5003A1.ADA	PC	SC	=	4
CA5003A2.ADA	PC	SC	=	4
CA5003A3.ADA	PC	SC	=	4
CA5003A4.ADA	PC	SC	=	4
CA5003A5.ADA	PC	SC	=	4
CA5003A6M.ADA	P	SC	=	7
LA5004A0-B.ADA	PC	SC	=	2
LA5004A1-B.ADA	PC	SC	=	2
LA5004A2-B.ADA	PC	SC	=	2
LA5004A3-B.ADA	PC	SC	=	6
LA5004A4-B.ADA	PC	SC	=	6

LA5004A5-B.ADA	PC	SC	=	6		
LA5004A6M-B.ADA	P	SC	=	7		
CB1001A-B.ADA	P	SC	=	33		
CB1002A.ADA	P	SC	=	10		
CB1003A.ADA	P	SC	=	25		
CB1004A.ADA	P	SC	=	26		
BB2001A.ADA	W					
BB2002A.ADA	P	SC	=	17	EC	= 6
BB2003A-AB.ADA	P	SC	=	7	EC	= 1
BB2003B-AB.ADA	P	SC	=	8	EC	= 1
BB2003C-AB.ADA	P	SC	=	5	EC	= 1
CB2004A-B.ADA	P	SC	=	71		
CB2005A-B.ADA	P	SC	=	26		
CB2006A.ADA	P	SC	=	21		
CB2007A.ADA	P	SC	=	40		
BB3001A-AB.ADA	P	SC	=	37	EC	= 9
BB3002A.ADA	P	SC	=	14	EC	= 3
CB3003A-B.ADA	P	SC	=	64		
CB3004A.ADA	P	SC	=	52		
BB3005A.ADA	P	SC	=	4	EC	= 2
CB4001A.ADA	P	SC	=	60		
CB4002A.ADA	P	SC	=	50		
CB4003A-AB.ADA	P	SC	=	35		
CB4004A-B.ADA	P	SC	=	26		
CB4005A.ADA	P	SC	=	19		
CB4006A-B.ADA	P	SC	=	26		
CB4008A.ADA	P	SC	=	66		
CB4009A-AB.ADA	P	SC	=	51		
BC1001A-B.ADA	F	SC	=	35	EC	= 9
BC1002A-AB.ADA	W					
CC1004A-AB.ADA	P	SC	=	29		
CC1007A-B.ADA	W					
BC1008A-AB.ADA	P	SC	=	9	EC	= 3
BC1009A-AB.ADA	P	SC	=	33	EC	= 11
CC1010A-AB.ADA	P	SC	=	18		
CC1010B-AB.ADA	P	SC	=	19		
BC1011A-AB.ADA	P	SC	=	9	EC	= 1
BC1011B-AB.ADA	P	SC	=	29	EC	= 4
BC1012A-AB.ADA	P	SC	=	10	EC	= 2
BC1013A-B.ADA	P	SC	=	47	EC	= 12
BC1101A-AB.ADA	P	SC	=	7	EC	= 1
BC1102A-B.ADA	P	SC	=	26	EC	= 8
BC1103A-AB.ADA	P	SC	=	72	EC	= 29
BC1104A-B.ADA	P	SC	=	16	EC	= 3
BC1104B-B.ADA	P	SC	=	15	EC	= 4
BC1106A-AB.ADA	P	SC	=	8	EC	= 1
BC1107A-B.ADA	P	SC	=	29	EC	= 10
BC1201A-AB.ADA	P	SC	=	8	EC	= 4
BC1201B-AB.ADA	PS	SC	=	7	EC	= 3
BC1202A-AB.ADA	P	SC	=	5	EC	= 1
BC1202B-AB.ADA	P	SC	=	7	EC	= 1
BC1202C-AB.ADA	P	SC	=	5	EC	= 1

BC1202D-AB.ADA	P	SC = 7	EC = 1
BC1203A-AB.ADA	P	SC = 11	EC = 2
BC1206A-B.ADA	W		
CC1220A-B.ADA	P	SC = 20	
CC1301A-AB.ADA	W		
CC1302A-AB.ADA	W		
BC1303A-AB.ADA	P	SC = 5	EC = 1
BC1303B-AB.ADA	P	SC = 7	EC = 1
BC1303C-AB.ADA	P	SC = 7	EC = 1
BC1303D-AB.ADA	P	SC = 5	EC = 1
BC1303E-AB.ADA	P	SC = 5	EC = 1
CC1304A-AB.ADA	P	SC = 46	
CC1305B-AB.ADA	P	SC = 63	
BC1306A-B.ADA	P	SC = 26	EC = 2
CC1307A-AB.ADA	P	SC = 13	
CC1308A-AB.ADA	P	SC = 37	
CC1310A-AB.ADA	P	SC = 33	
BC2001A-AB.ADA	P	SC = 10	EC = 2
BC2001B-AB.ADA	P	SC = 10	EC = 2
CC2002A-AB.ADA	P	SC = 22	
BC3002A-AB.ADA	P	SC = 13	EC = 3
BC3002B-AB.ADA	P	SC = 9	EC = 3
BC3002C-AB.ADA	P	SC = 8	EC = 2
BC3002D-AB.ADA	P	SC = 9	EC = 3
BC3002E-AB.ADA	P	SC = 10	EC = 3
BC3003A-AB.ADA	P	SC = 15	EC = 3
BC3003B-AB.ADA	P	SC = 17	EC = 3
CC3004A-B.ADA	P	SC = 28	
BC3005A-AB.ADA	P	SC = 21	EC = 6
BC3006A-AB.ADA	P	SC = 17	EC = 4
CC3007A-AB.ADA	P	SC = 53	
CC3011A-B.ADA	P	SC = 60	
BC3011B-B.ADA	P	SC = 21	EC = 2
BC3011C-AB.ADA	P	SC = 11	EC = 3
CC3011D-B.ADA	P	SC = 30	
CC3012A-AB.ADA	P	SC = 119	
BC3013A-AB.ADA	P	SC = 18	EC = 3
BC3101A-B.ADA	P	SC = 131	EC = 36
BC3101B-B.ADA	P	SC = 142	EC = 74
BC3102A-B.ADA	P	SC = 101	EC = 33
BC3102B-B.ADA	P	SC = 101	EC = 33
BC3103A-AB.ADA	P	SC = 60	EC = 12
BC3103B-AB.ADA	P	SC = 12	EC = 1
CC3120A-AB.ADA	P	SC = 85	
CC3120B-B.ADA	W		
CC3125A-B.ADA	P	SC = 32	
BC3201A-B.ADA	P	SC = 21	EC = 5
BC3201B-AB.ADA	P	SC = 21	EC = 5
BC3201C-B.ADA	P	SC = 24	EC = 6
BC3202A-B.ADA	P	SC = 55	EC = 16
BC3202B-B.ADA	P	SC = 52	EC = 16
BC3202C-B.ADA	P	SC = 49	EC = 14

CC3203A-B.ADA	W					
BC3203B-B.ADA	P	SC	=	66	EC	= 8
BC3204A-B.ADA	W					
BC3204B-B.ADA	W					
BC3204C0-B.DEP	PC	SC	=	5	EC	= 0
BC3204C1M-B.DEP	W					
BC3204C2-B.DEP	PC	SC	=	16	EC	= 1
BC3204D-AB.ADA	W					
BC3204E-B.ADA	P	SC	=	42	EC	= 8
BC3205A-B.ADA	W					
BC3205B-B.ADA	W					
BC3205C-AB.ADA	W					
BC3205D0-B.ADA	PC	SC	=	9	EC	= 0
BC3205D1M-B.ADA	W					
BC3205D2-B.ADA	PC	SC	=	13	EC	= 1
BC3205E-B.ADA	P	SC	=	62	EC	= 16
BC3205F-B.ADA	W					
BC3205G-B.ADA	W					
BC3205H-B.ADA	W					
BC3205I0-B.ADA	PC	SC	=	9	EC	= 0
BC3205I1M-B.ADA	W					
BC3205I2-B.ADA	PC	SC	=	13	EC	= 1
BC3205J-B.ADA	W					
CC3208A-AB.ADA	P	SC	=	35		
CC3208B-AB.ADA	P	SC	=	37		
BC3301A-AB.ADA	P	SC	=	37	EC	= 7
BC3301B-AB.ADA	P	SC	=	17	EC	= 4
BC3302A-AB.ADA	P	SC	=	33	EC	= 10
BC3302B-AB.ADA	P	SC	=	21	EC	= 6
BC3303A-AB.ADA	P	SC	=	33	EC	= 10
BC3304A-AB.ADA	P	SC	=	35	EC	= 11
CC3305A-AB.ADA	P	SC	=	35		
CC3305B-AB.ADA	P	SC	=	23		
CC3305C-AB.ADA	P	SC	=	23		
CC3305D-AB.ADA	P	SC	=	23		
BC3401A-AB.ADA	P	SC	=	28	EC	= 10
BC3401B-AB.ADA	P	SC	=	16	EC	= 4
BC3402A-AB.ADA	P	SC	=	29	EC	= 6
BC3402B-AB.ADA	P	SC	=	22	EC	= 6
BC3403A-AB.ADA	P	SC	=	85	EC	= 19
BC3403B-AB.ADA	P	SC	=	82	EC	= 18
BC3403C-AB.ADA	W					
BC3404A-AB.ADA	P	SC	=	86	EC	= 14
BC3404B-B.ADA	W					
BC3404C-AB.ADA	P	SC	=	21	EC	= 4
BC3404D-AB.ADA	P	SC	=	49	EC	= 12
BC3404E-AB.ADA	P	SC	=	39	EC	= 3
BC3404F-AB.ADA	P	SC	=	36	EC	= 3
BC3405A-AB.ADA	P	SC	=	55	EC	= 9
BC3405B-B.ADA	W					
BC3405C-B.ADA	W					
BC3405D-AB.ADA	P	SC	=	61	EC	= 8

BC3405E-AB.ADA	W					
BC3405F-AB.ADA	W					
CC3406A-AB.ADA	P	SC	=	21		
CC3406B-AB.ADA	P	SC	=	22		
CC3406C-AB.ADA	P	SC	=	27		
CC3406D-B.ADA	P	SC	=	23		
CC3407A-AB.ADA	P	SC	=	35		
CC3407B-AB.ADA	P	SC	=	34		
CC3407C-AB.ADA	P	SC	=	35		
CC3407D-AB.ADA	P	SC	=	55		
CC3407E-AB.ADA	P	SC	=	30		
CC3407F-AB.ADA	P	SC	=	21		
CC3408A-AB.ADA	P	SC	=	21		
CC3408B-AB.ADA	P	SC	=	22		
CC3408C-AB.ADA	P	SC	=	27		
CC3408D-B.ADA	P	SC	=	22		
BC3501A-AB.ADA	P	SC	=	23	EC	= 4
BC3501B-AB.ADA	P	SC	=	18	EC	= 4
BC3501C-AB.ADA	P	SC	=	32	EC	= 5
BC3501D-AB.ADA	P	SC	=	27	EC	= 5
BC3501E-AB.ADA	P	SC	=	30	EC	= 4
BC3501F-AB.ADA	P	SC	=	30	EC	= 3
BC3501G-AB.ADA	P	SC	=	73	EC	= 9
BC3501H-AB.ADA	P	SC	=	62	EC	= 9
BC3501I-AB.ADA	P	SC	=	17	EC	= 3
BC3501J-AB.ADA	P	SC	=	13	EC	= 2
BC3501K-AB.ADA	P	SC	=	15	EC	= 2
BC3502A-AB.ADA	P	SC	=	25	EC	= 4
BC3502B-AB.ADA	P	SC	=	49	EC	= 13
BC3502C-AB.ADA	P	SC	=	72	EC	= 16
BC3502D-AB.ADA	P	SC	=	123	EC	= 26
BC3502E-AB.ADA	P	SC	=	103	EC	= 17
BC3502F-AB.ADA	P	SC	=	36	EC	= 7
BC3502G-AB.ADA	P	SC	=	44	EC	= 13
BC3502H-AB.ADA	P	SC	=	62	EC	= 13
BC3502I-AB.ADA	P	SC	=	86	EC	= 20
BC3502J-AB.ADA	P	SC	=	85	EC	= 16
BC3502K-AB.ADA	P	SC	=	12	EC	= 2
BC3502L-AB.ADA	P	SC	=	19	EC	= 5
BC3502M-AB.ADA	P	SC	=	15	EC	= 3
BC3502N-AB.ADA	P	SC	=	26	EC	= 3
BC3502O-AB.ADA	P	SC	=	28	EC	= 3
BC3503A-B.ADA	P	SC	=	62	EC	= 12
BC3503B-B.ADA	P	SC	=	43	EC	= 8
BC3503C-B.ADA	W					
BC3503D-B.ADA	P	SC	=	34	EC	= 6
BC3503F-B.ADA	P	SC	=	18	EC	= 3
CC3504A-B.ADA	P	SC	=	43		
CC3504B-B.ADA	P	SC	=	48		
CC3504C-B.ADA	P	SC	=	57		
CC3504D-B.ADA	P	SC	=	33		
CC3504E-B.ADA	P	SC	=	40		

CC3504F-B.ADA	P	SC = 45	
CC3504G-B.ADA	P	SC = 54	
CC3504H-B.ADA	P	SC = 35	
CC3504I-B.ADA	P	SC = 29	
CC3504J-B.ADA	P	SC = 30	
CC3504K-B.ADA	P	SC = 30	
CC3601C-AB.ADA	W		
CC3602A-AB.ADA	P	SC = 36	
AE2101A-B.ADA	P	SC = 45	
AE2101B-B.ADA	P	SC = 15	
AE2101C-B.ADA	NA	SC = 17	
AE2101D-B.ADA	P	SC = 15	
BE2101E-B.ADA	P	SC = 42	EC = 16
CE2102A-B.DEP	P	SC = 73	
CE2102B-B.DEP	P	SC = 71	
CE2102C-B.DEP	P	SC = 52	
CE2102D-B.DEP	NA	SC = 63	
CE2102E-B.DEP	NA	SC = 63	
CE2102F-B.DEP	NA	SC = 34	
CE2102G-B.DEP	NA	SC = 64	
CE2103A-B.DEP	P	SC = 87	
CE2103B-B.DEP	P	SC = 87	
CE2104A-B.DEP	P	SC = 59	
CE2104B-B.DEP	P	SC = 66	
CE2105A-B.DEP	P	SC = 25	
CE2106A-B.DEP	P	SC = 59	
CE2107A-B.DEP	P	SC = 45	
CE2107B-B.DEP	P	SC = 36	
CE2107C-B.DEP	P	SC = 37	
CE2107D-B.DEP	P	SC = 43	
CE2107E-B.DEP	P	SC = 34	
CE2108A-B.DEP	P	SC = 16	
CE2108B-B.DEP	P	SC = 20	
CE2108C-B.DEP	P	SC = 20	
CE2108D-B.DEP	P	SC = 26	
CE2108E-B.DEP	P	SC = 20	
CE2108F-B.DEP	P	SC = 26	
CE2109A-B.DEP	P	SC = 25	
CE2110A-B.DEP	P	SC = 47	
CE2110B-B.DEP	P	SC = 43	
CE2111A-B.DEP	P	SC = 73	
CE2111B-B.DEP	P	SC = 53	
CE2111C-B.DEP	P	SC = 87	
CE2111D-B.DEP	P	SC = 69	
BE2112A-B.ADA	P	SC = 48	EC = 33
BE2112B-B.ADA	P	SC = 19	EC = 10
BE2112C-B.ADA	P	SC = 26	EC = 13
BE2114A-B.ADA	P	SC = 18	EC = 3
CE2201A-B.DEP	P	SC = 119	
CE2201B-B.DEP	NA	SC = 81	
CE2201C-B.DEP	P	SC = 51	
CE2201D-B.DEP	NA	SC = 36	

CE2201E-B.DEP	NA	SC = 38	
CE2201F-B.DEP	P	SC = 36	
BE2208A-B.ADA	P	SC = 12	EC = 3
CE2210A-B.DEP	P	SC = 26	
CE2401A-B.DEP	P	SC = 103	
CE2401B-B.DEP	P	SC = 104	
CE2401C-B.DEP	P	SC = 111	
CE2401D-B.DEP	NA	SC = 75	
CE2401E-B.DEP	W		
CE2401F-B.DEP	P	SC = 47	
CE2402A-B.DEP	P	SC = 57	
CE2404A-B.DEP	P	SC = 34	
CE2405B-B.DEP	P	SC = 21	
CE2406A-B.DEP	P	SC = 34	
CE2407A-B.DEP	P	SC = 26	
CE2408A-B.DEP	P	SC = 30	
CE2409A-B.DEP	P	SC = 26	
CE2410A-B.DEP	P	SC = 27	
BE3001A-B.ADA	P	SC = 10	EC = 4
BE3002A-B.ADA	P	SC = 17	EC = 4
CE3002B-B.ADA	P	SC = 20	
CE3002C-B.ADA	P	SC = 17	
CE3002D-B.ADA	P	SC = 18	
BE3002E-B.ADA	P	SC = 8	EC = 3
CE3002F-B.ADA	P	SC = 14	
AE3101A-B.DEP	P	SC = 19	
CE3102A-B.DEP	P	SC = 54	
CE3102D-B.DEP	P	SC = 18	
CE3103A-B.ADA	P	SC = 45	
CE3104A-B.DEP	P	SC = 49	
BE3105A-B.ADA	P	SC = 5	EC = 1
CE3202A-B.DEP	P	SC = 11	
CE3203A-B.DEP	P	SC = 38	
BE3205A-B.ADA	P	SC = 9	EC = 6
CE3206A-B.DEP	P	SC = 18	
CE3208A-B.DEP	P	SC = 28	
CE3301A-B.DEP	P	SC = 30	
CE3301B-B.DEP	P	SC = 50	
CE3301C-B.DEP	P	SC = 23	
CE3302A-B.DEP	P	SC = 33	
CE3303A-B.DEP	P	SC = 30	
CE3305A-B.DEP	P	SC = 37	
CE3402A-B.ADA	P	SC = 26	
CE3402B-B.ADA	P	SC = 41	
CE3402C-B.ADA	P	SC = 35	
CE3402D-B.ADA	P	SC = 25	
CE3402E-B.ADA	P	SC = 25	
CE3403A-B.ADA	P	SC = 26	
CE3403B-B.ADA	P	SC = 54	
CE3403C-B.ADA	P	SC = 32	
CE3403D-B.ADA	P	SC = 28	
CE3403E-B.ADA	P	SC = 43	

CE3403F-B.ADA	P	SC = 46	
CE3404A-B.ADA	P	SC = 31	
CE3404B-B.ADA	P	SC = 36	
CE3404C-B.ADA	P	SC = 70	
CE3405A-B.ADA	P	SC = 38	
CE3405B-B.ADA	P	SC = 26	
CE3405C-B.ADA	P	SC = 30	
CE3405D-B.ADA	P	SC = 32	
CE3406A-B.ADA	P	SC = 42	
CE3406B-B.ADA	P	SC = 30	
CE3406C-B.ADA	W		
CE3406D-B.ADA	P	SC = 28	
CE3407A-B.ADA	P	SC = 51	
CE3407B-B.ADA	P	SC = 26	
CE3407C-B.ADA	P	SC = 31	
CE3408A-B.ADA	P	SC = 49	
CE3408B-B.ADA	P	SC = 41	
CE3408C-B.ADA	P	SC = 31	
CE3409A-B.ADA	P	SC = 23	
CE3409B-B.ADA	P	SC = 32	
CE3409C-B.ADA	P	SC = 68	
CE3409D-B.ADA	P	SC = 39	
CE3409E-B.ADA	P	SC = 29	
CE3409F-B.ADA	P	SC = 25	
CE3410A-B.ADA	P	SC = 23	
CE3410B-B.ADA	P	SC = 32	
CE3410C-B.ADA	P	SC = 66	
CE3410D-B.ADA	P	SC = 32	
CE3410E-B.ADA	P	SC = 23	
CE3410F-B.ADA	P	SC = 25	
CE3411A-B.ADA	P	SC = 64	
CE3411C-B.ADA	P	SC = 50	
CE3412A-B.ADA	P	SC = 51	
CE3412C-B.ADA	P	SC = 54	
CE3413A-B.ADA	P	SC = 36	
CE3413C-B.ADA	P	SC = 50	
BE3501A-B.ADA	P	SC = 8	EC = 4
CE3601A-B.ADA	P	SC = 45	
CE3602A-B.DEP	P	SC = 55	
CE3602B-B.DEP	P	SC = 54	
CE3602C-B.DEP	P	SC = 56	
CE3602D-B.DEP	P	SC = 48	
CE3603A-B.DEP	P	SC = 84	
CE3604A-B.DEP	P	SC = 117	
CE3605A-B.DEP	P	SC = 24	
CE3605B-B.DEP	P	SC = 46	
CE3605C-B.DEP	P	SC = 55	
CE3605D-B.DEP	P	SC = 56	
CE3605E-B.DEP	P	SC = 34	
CE3606A-B.DEP	P	SC = 30	
CE3606B-B.DEP	P	SC = 20	
BE3606C-B.ADA	P	SC = 6	EC = 1

CE3701A-B.DEP	P	SC = 33	
AE3702A-B.DEP	P	SC = 21	
BE3703A-B.ADA	P	SC = 23	EC = 8
CE3704A-B.DEP	P	SC = 40	
CE3704B-B.DEP	P	SC = 31	
CE3704C-B.ADA	P	SC = 29	
CE3704D-B.DEP	P	SC = 54	
CE3704E-B.DEP	P	SC = 37	
CE3704F-B.DEP	P	SC = 40	
CE3706C-B.ADA	P	SC = 36	
CE3706F-B.DEP	P	SC = 29	
CE3706G-B.ADA	P	SC = 26	
CE3707A-B.DEP	P	SC = 53	
CE3801A-B.DEP	P	SC = 39	
BE3802A-B.ADA	F	SC = 25	EC = 7
BE3803A-B.ADA	P	SC = 27	EC = 12
CE3804A-B.DEP	P	SC = 61	
CE3804B-B.DEP	P	SC = 61	
CE3804C-B.DEP	P	SC = 64	
CE3804D-B.ADA	P	SC = 55	
CE3804E-B.ADA	P	SC = 55	
CE3804F-B.DEP	P	SC = 30	
CE3804G-B.DEP	P	SC = 79	
CE3804I-B.DEP	P	SC = 54	
CE3805A-B.DEP	P	SC = 67	
CE3805B-B.DEP	P	SC = 68	
CE3806A-B.DEP	P	SC = 44	
CE3806C-B.DEP	P	SC = 55	
CE3806D-B.DEP	P	SC = 64	
CE3806E-B.ADA	P	SC = 94	
CE3809A-B.DEP	P	SC = 86	
CE3809B-B.DEP	P	SC = 86	
CE3810A-B.DEP	P	SC = 42	
CE3901A-B.DEP	P	SC = 23	
BE3902A-B.ADA	P	SC = 24	EC = 3
BE3903A-B.ADA	P	SC = 28	EC = 12
CE3905A-B.DEP	P	SC = 38	
CE3905B-B.DEP	P	SC = 31	
CE3905C-B.DEP	P	SC = 71	
CE3906A-B.DEP	P	SC = 34	
CE3906B-B.DEP	P	SC = 31	
CE3906C-B.DEP	P	SC = 37	
CE3906D-B.ADA	P	SC = 26	
CE3906E-B.DEP	P	SC = 31	
CE3906F-B.ADA	P	SC = 41	
CE3907A-B.DEP	P	SC = 25	
CE3908A-B.DEP	P	SC = 29	
CZ1101A-AB.ADA	P	SC = 23	
CZ1102A-AB.ADA	P	SC = 15	
CZ1103A-B.ADA	P	SC = 85	
REPORT_SPEC-AB.ADA	PC	SC = 11	
REPORT_BODY-B.ADA	PC	SC = 82	
CHECK_FILE-B.ADA	PC	SC = 68	

APPENDIX B

Command Procedures Used to Process the Tests

These procedures were used to create batch jobs that processed the tests. A file of test names was used to specify what tests were to be processed. The main command procedure is CLX.CLI. The procedures are listed alphabetically.

B.1 ACOMP.CLI

```
Push
[!Neq,%1%,]
   Del/2=ign %1%+.<ob,sr,str,tree>
   string /base_lib=:ade:system.alib:library.lib
   [!neq,%0/m%,]
      String /main_program[!string]
   [!end]
   [!Neq,%0/e%,]
      String /ps_program_echo[!string]
   [!end]
   [!Neq,%0/l%,]
      String /sm_listing[!string]
   [!end]
   Ada[!string] %1-%
   Expand [!filename [!ename %1%]+.sr]
   [!Neq,[!size [!string]],0]
      del/2=ign [!ename %1%].er
      string/k
      xeq/s masm/n/e=[!ename %1%].er ([!filename [!ename %1%]+.sr])
      [!nequal,([!string]),()]
      write      *** Error in %1% ***[!ascii 207]
      string
      ty [!ename %1%].er
      [!end]
   [!else]
      break.cli %1%
      [!Neq,[!string],B]
         Wr No assembly module found!!!!
      [!end]
   [!end]
[!end]
Pop
```

B.2 ADA.CLI

```
Push; Prompt Pop
  proc/block/ioc/sons/pri=2/1=warn/2=warn :ade_programs:ada%0/% %1-% &
                                        | alib
Pop
```

B.3 ADALOAD.CLI

```
Push; Prompt Pop
  x/1=warn/2=warn :ade_programs:adaload%0/% %1-%
Pop
```

B.4 ALINK.CLI

```
[!Neq,%1%,]
      Cat [!ename %1%]
      Adaload%0/%/No_map Alib [!string]
      Break.cli [!ename %1%]
      [!Neq,[!string],L]
         Del/2=ign [!ename %1%]+.<map,log,cli> [!ename %1%]+elab+<sr,ob>
      [!else]
         Del/2=ign [!ename %1%]+.map [!ename %1%]+elab+<sr,ob>
      [!end]
      Del/2=ign [!ename  %1%]+.<str,tree,ob,sr>
[!else]
   Wr No link specified...
[!end]
```

B.5 ALINKEX.CLI

```
alink %1%
x/1=warn/2=warn [!ename %1%]
```

B.6 AMASM.CLI

```
[!Neq,%1%,]
   [!Neq,[!filename [!ename %1%]+.sr],]
      del/2=ign [!ename %1%].<ls,er>
      Masm/N/e=[!ename %1%].er/l=[!ename %1%].ls [!filename [!ename %1%]+.sr]
      [!Neq,%0/qpr%,]
         Qpri/del [!ename %1%].ls
      [!end]
   [!end]
[!end]
```

B.7 BATCH.CLI

```
PUSH
SEA [!DIR],[!SEA]
DIR %0%
[!ne,%1%,]
  %1-%
[!else]
  WRITE Current directory is [!DIR]
```

B.7 BATCH.CLI

```
[!end]
```

B.8 BLD.CLI

```
Wr ACVC tests start.......
[!eq [!efi [!dir]],NEW_TAPE]
   del/2=ign rep+.<ob,str,tree,sr> check_file_b+.<ob,str,tree,sr>
   ada/base_lib=:ade:system.alib:library.lib  repspec repbody check_file_b
   move/v/del ch(2,3,4,5,6,7,8,9,10,11,12,14) alib.lib
   ch14
   batch/tag=ch14/job=ch14%0/% do_chap 14
   dir ^ch2
   batch/tag=ch2/job=ch2%0/% do_chap 2
   dir ^ch3
   batch/tag=ch3/job=ch3%0/%  do_chap 3
   dir ^ch4
   batch/tag=ch4/job=ch4%0/%  do_chap 4
   dir ^ch5
   batch/tag=ch5/job=ch5%0/%  do_chap 5
   dir ^ch6
   batch/tag=ch6/job=ch6%0/%  do_chap 6
   dir ^ch7
   batch/tag=ch7/job=ch7%0/%  do_chap 7
   dir ^ch8
   batch/tag=ch8/job=ch8%0/%  do_chap 8
   dir ^ch9
   batch/tag=ch9/job=ch9%0/%  do_chap 9
   dir ^ch10
   batch/tag=ch10/job=ch10%0/%  do_chap 10
   dir ^ch11
   batch/tag=ch11/job=ch11%0/%  do_chap 11
   dir ^ch12
   batch/tag=ch12/job=ch12%0/%  do_chap 12
   dir ^ch2
   batch/tag=ch2x/job=ch2x%0/% do_chapx 2
   dir ^ch3
   batch/tag=ch3x/job=ch3x%0/%  do_chapx 3
   dir ^ch4
   batch/tag=ch4x/job=ch4x%0/%  do_chapx 4
   dir ^ch5
   batch/tag=ch5x/job=ch5x%0/%  do_chapx 5
   dir ^ch6
   batch/tag=ch6x/job=ch6x%0/%  do_chapx 6
   dir ^ch9
   batch/tag=ch9x/job=ch9x%0/%  do_chapx 9
   dir ^ch12
   batch/tag=ch12x/job=ch12x%0/%  do_chapx 12
[!else]
   Wr Wrong directory to start tests
[!end]
```

B.9 BREAK.CLI

```
[!eq,%0/s%,]
   string/k
   %0%/s [!explode %1%]
[!else]
   string %1%
[!end]
```

B.10 BREAK2.CLI

```
[!eq,%0/s%,]
   string/k
   %0%/s [!explode %1%]
[!else]
   [!Eq,%2%,A]
      String 10
   [!else]
      [!Eq,%2%,B]
         String 11
      [!else]
         [!Eq,%2%,C]
            String 12
         [!else]
            [!Eq,%2%,E]
               String 14
            [!else]
               String %2%
            [!end]
         [!end]
       [!end]
   [!end]
[!end]
```

B.11 BUILD.CLI

```
[!eq,%0/c%,]
  del/2=ignore ch%1%.listings
  build_listing_file/c ch%1% ([ch%1%.files])
[!else]
  [!ne,%2%,]
    wr/l=%1%.listings [!as 214]----  Ada compile of module "%2%"
    wr/l=%1%.listings
    wr/l=%1%.listings
    copy/a %1%.listings %1%:[!ename %2%].lst
  [!end]
[!end]
```

B.12 CAT.CLI

```
[!eq,%0/s%,]
   String/k
   %0%/s [!explode [!ename %1%]]
[!else]
   [!Neq %1%,[!asc 127]]
      String [!string]%1%
      [!Neq,%2%,]
         %0%/s %2-%
      [!end]
   [!end]
[!end]
```

B.13 CATCH.CLI

```
Wr Chapter %1% bug list
catch ([ch%1%.files])
Wr
```

B.14 CHANGE.CLI

```
PUSH
SEA [!DIR],[!SEA]
DIR %0%
[!ne,%1%,]
  %1-%
[!else]
  WRITE Current directory is [!DIR]
[!end]
```

B.15 CH.CLI

```
crossref/lang=ada/l=^ch%1%/nosource/rwonly/files=ch%1%.files/Nocount
```

B.16 CLEANUP.CLI

```
[!Eq,%1%,]
   del/2=ign +.<ob,str,tree,st,log,sr,map,pr,cli> title name.lk
[!else]
   del/v/2=ign %1%+.<ob,str,tree,st,log,sr,map,pr,cli>
[!end]
```

B.17 CLG.CLI

```
Wr
wr ########,,,,Compile, link and execution of %1%,,,,########
Wr
break.cli %1%
[!eq,[!string],B]
   acomp/e %1-%
[!else]
   acomp/m %1-%
   alink %1%
   [!Une,[!size,[!ename %1%].PR],0]
      [!Eq,[!ename %1%],C94004A_B]
         Wr ****** %1% requires manual intervention
         [!Eq,[!logon],CONSOLE]
            x/1=warn/2=warn [!ename %1%]
         [!end]
      [!else]
         Wr Execution starts at [!Time]
         x/1=warn/2=warn [!ename %1%]
         wr Execution completed at [!time]
      [!end]
   [!else]
      Wr No [!ename %1%].pr found!!!!
   [!end]
[!end]
```

B.18 CLX.CLI

```
[!Neq,%1%,]
   Break2.cli %1%
   [!Neq,[!str],Z]
      Var9 [!string]
   [!end]
   [!Eq,[!filename TITLE],]
      Wr
      Dash [!explode %1%]
      Wr ########,,,,COMPILATION LINKING AND EXECUTION OF [!STR],,,,########
      Wr
      Wr/l=title
      [!EQ,%0/KEEP%,]
          [!Ueq,[!var9],8]
             Del/2=ign alib.lib
             Copy Alib.lib ^alib.lib
          [!else]
             [!Ueq,[!var9],10]
                Del/2=ign alib.lib
                Copy Alib.lib ^alib.lib
             [!else]
                [!Neq,%1/U%,]
                   Del/2=ign alib.lib
```

```
                    Copy Alib.lib ^alib.lib
                [!end]
            [!end]
        [!end]
    [!end]
[!end]
Break.cli %1%
[!eq,[!string],B]
   Compile %1% %2-%
   Del/2=ign title
[!else]
   [!Neq,%1/S%,]
      Compile %1% %2-%
   [!else]
       [!Neq,%1/M%,]
          Cat [!ename %1%]
          Compile/m=[!str] %1% %2-%
       [!else]
          Compile/m %1% %2-%
       [!end]
       [!Neq,%1/NL%,]
          Del/2=ign name.lk name.pr
          Wr/l=name.lk %1%
          Wr/l=name.pr [!ename %1%].PR
       [!else]
          [!Neq,%1/LNK%,]
             Alink [name.lk]
             String [name.pr]
             [!Eq,[!fi [!string]],]
                Wr EXECUTION STARTS [!time]
                Wr
                Wr ---- [!string] DOES NOT EXIST.
                Wr **** [!string] FAILED **********.
                Wr
                String [!time]
             [!else]
                Wr EXECUTION STARTS [!TIME]
                String [!time]
                X/1=warn/2=warn [name.pr]
             [!end]
             Elapsed time [!explode [!time]] [!explode [!string]]
             [!UGT [!var0],1]
                Wr EXECUTION TIME: [!VAR0] SECONDS
             [!else]
                Wr EXECUTION TIME: [!VAR0] SECOND
             [!end]
             Runpr ch[!var9].lg [name.lk]
             Del/2=ign +.<pr,st> title name.<lk,pr>
          [!else]
             [!Eq,%1/T%,]
                Alink/sequential %1%
             [!else]
```

```
                  Alink %1%
               [!end]
               [!Eq,[!ename %1%],C94004A_B]
                  [!Eq,[!logon],CONSOLE]
                     Wr **** %1% REQUIRES MANUAL INTERVENTION.
                     X/1=warn/2=warn [!ename %1%]
                  [!else]
                     Wr
                     Wr ---- [!ename %1%].PR REQUIRES MANUAL INTERVENTION.
                     Wr **** [!ename %1%] NOT EXECUTED **********************.
                     Wr
                  [!end]
               [!else]
                  Wr EXECUTION STARTS [!TIME]
                  String [!time]
                  [!Eq,[!fi [!ename %1%].pr],]
                     Wr
                     Wr ---- [!ename %1%].PR DOES NOT EXIST.
                     Wr **** [!ename %1%] FAILED **********************.
                     Wr
                  [!else]
                     [!Eq,[!ename %1%],CE3406C_B]
                        Proc/blo/ioc/cpu=1/1=warn/2=warn [!ename %1%]
                     [!else]
                        X/1=warn/2=warn [!ename %1%]
                     [!end]
                  [!end]
                  Elapsed_time [!explode [!time]] [!explode [!string]]
                  [!UGT [!var0],1]
                     Wr EXECUTION TIME: [!VAR0] SECONDS
                  [!else]
                     Wr EXECUTION TIME: [!VAR0] SECOND
                  [!end]
               [!end]
               Runpr ch[!var9].lg %1%
               Del/2=ign [!ename %1%].<pr,st> title
            [!end]
         [!end]
      [!end]
   [!end]
[!end]
```

B.19 COMPILE.CLI

```
Push
[!Neq,%1%,]
   Del/2=ign [!ename %1%]+.<lst,err,cpp,ob,sr,str,tree>
   string /base_lib=:ade:system.alib:library.lib
   [!neq,%0/m%,]
     [!Neq,%0/m=%,]
        String /main_program=%0/m=%[!string]
```

B.19 COMPILE.CLI

```
      [!else]
         String /main_program[!string]
      [!end]
   [!end]
   Ada[!string] %1-%
   Ren/2=ignore [!ename %1%].<lst,err>
   [!ne,[!file [!ename %1%].cpp],]
     Ren/2=ignore [!ename %1%].<cpp,lst>
   [!else]
     create [!ename %1%].lst
     X interwoven %1% [!ename %1%].<err,lst>
   [!end]
[!end]
Pop
```

B.20 DASH.CLI

```
Str/k
[!Eq,%4%,_]
   String %1%%2%%3%-%5%%6%%7%%8%%9%%10%%11%%12%%13%%14%%15%%16%
[!end]
[!Eq,%5%,_]
   String %1%%2%%3%%4%-%6%%7%%8%%9%%10%%11%%12%%13%%14%%15%%16%
[!end]
[!Eq,%6%,_]
   String %1%%2%%3%%4%%5%-%7%%8%%9%%10%%11%%12%%13%%14%%15%%16%
[!end]
[!Eq,%7%,_]
   String %1%%2%%3%%4%%5%%6%-%8%%9%%10%%11%%12%%13%%14%%15%%16%
[!end]
[!Eq,%8%,_]
   String %1%%2%%3%%4%%5%%6%%7%-%9%%10%%11%%12%%13%%14%%15%%16%
[!end]
[!Eq,%9%,_]
   String %1%%2%%3%%4%%5%%6%%7%%8%-%10%%11%%12%%13%%14%%15%%16%
[!end]
[!Eq,%10%,_]
   String %1%%2%%3%%4%%5%%6%%7%%8%%9%-%11%%12%%13%%14%%15%%16%
[!end]
[!Eq,%11%,_]
   String %1%%2%%3%%4%%5%%6%%7%%8%%9%%10%-%12%%13%%14%%15%%16%
[!end]
[!Eq,%12%,_]
   String %1%%2%%3%%4%%5%%6%%7%%8%%9%%10%%11%-%13%%14%%15%%16%
[!end]
[!Eq,%13%,_]
   String %1%%2%%3%%4%%5%%6%%7%%8%%9%%10%%11%%12%-%14%%15%%16%
[!end]
[!Eq,%14%,_]
   String %1%%2%%3%%4%%5%%6%%7%%8%%9%%10%%11%%12%%13%-%15%%16%
[!end]
```

B.20 DASH.CLI

```
[!Eq,%15%,_]
   String %1%%2%%3%%4%%5%%6%%7%%8%%9%%10%%11%%12%%13%%14%-%16%
[!end]
[!Eq,[!string],]
   String %1%%2%%3%%4%%5%%6%%7%%8%%9%%10%%11%%12%%13%%14%%15%%16%
[!end]
```

B.21 DOPR.CLI

```
   del/2=ign ?[!pid].pr.tmp
   create ?[!pid].pr.tmp
Proc/cpu=1/input=@null/output=?[!pid].pr.tmp/blo&
/1=warn/2=warn/l=?[!pid].pr.tmp [!ename %1%]
   qpri/del ?[!pid].pr.tmp
```

B.22 DO.CLI

```
[!Eq,[!efi [!dir]],CH%1%]
   cleanup
   del/2=ign +.lst ch%1%.lg
   [!Eq,%1%,9]
      Clx ([ch%1%_ex.files])/T
   [!else]
      Clx ([ch%1%_ex.files])
   [!end]
   cleanup
   [!Neq,%2%,]
      qunhold ch%2%
   [!end]
[!else]
   Wr Wrong directory:[!dir] to start tests
[!end]
```

B.23 DUMP.CLI

```
Dump/v/nacl @Mtb%1%:0 load_tape.cli
Dump/v/nacl @mtb%1%:1 +.cli +.pr +.st pink+ new_tape
new_tape
Dump/v/nacl @mtb%1%:2 ch- ch-.files util:+ +.cli
Rew @Mtb%1%
```

B.24 ED.CLI

```
pink/zip/t%0/% %1-%
```

B.25 ELAPSED.CLI

```
var2 [!uadd [!uadd [!umul %1%%2% 3600] [!umul %4%%5% 60]] %7%%8%]
var1 [!uadd [!uadd [!umul %9%%10% 3600] [!umul %12%%13% 60]] %15%%16%]
[!Ugt,%9%%10%,%1%%2%]
   Var1 [!usub 86400 [!var1]]
   Var0 [!uadd [!var1] [!var2]]
[!else]
   Var0 [!usub [!var2] [!var1]]
[!end]
```

B.26 EXIT.CLI

```
pop
Wr [!dir]
```

B.27 EXPAND.CLI

```
string/k
string %1%
```

B.28 FAST.CLI

```
del/2=ign *.lst
fcomp [ch%1%.files]
cleanup
qunhold ch%2%
```

B.29 FCOMP.CLI

```
Push
[!Neq,%1%,]
   Ada/no_code_gen/base_lib=:ade:system.alib:library.lib %1-9%
   [!neq,%10%,]
   Ada/no_code_gen/base_lib=:ade:system.alib:library.lib %10-19%
   [!end]
   [!neq,%20%,]
   Ada/no_code_gen/base_lib=:ade:system.alib:library.lib %20-29%
   [!end]
   [!neq,%30%,]
   Ada/no_code_gen/base_lib=:ade:system.alib:library.lib %30-39%
   [!end]
   [!neq,%40%,]
   Ada/no_code_gen/base_lib=:ade:system.alib:library.lib %40-49%
   [!end]
   [!neq,%50%,]
   Ada/no_code_gen/base_lib=:ade:system.alib:library.lib %50-59%
   [!end]
```

```
    [!neq,%60%,]
    Ada/no_code_gen/base_lib=:ade:system.alib:library.lib %60-69%
    [!end]
    [!neq,%70%,]
    Ada/no_code_gen/base_lib=:ade:system.alib:library.lib %70-79%
    [!end]
    [!neq,%80%,]
    Ada/no_code_gen/base_lib=:ade:system.alib:library.lib %80-89%
    [!end]
    [!neq,%90%,]
    Ada/no_code_gen/base_lib=:ade:system.alib:library.lib %90-99%
    [!end]
    [!neq,%100%,]
    Ada/no_code_gen/base_lib=:ade:system.alib:library.lib %100-109%
    [!end]
    [!neq,%110%,]
    Ada/no_code_gen/base_lib=:ade:system.alib:library.lib %110-119%
    [!end]
    [!neq,%120%,]
    Ada/no_code_gen/base_lib=:ade:system.alib:library.lib %120-129%
    [!end]
    [!neq,%130%,]
    Ada/no_code_gen/base_lib=:ade:system.alib:library.lib %130-139%
    [!end]
    [!neq,%140%,]
    Ada/no_code_gen/base_lib=:ade:system.alib:library.lib %140-149%
    [!end]
    [!neq,%150%,]
    Ada/no_code_gen/base_lib=:ade:system.alib:library.lib %150-159%
    [!end]
    [!neq,%160%,]
    Ada/no_code_gen/base_lib=:ade:system.alib:library.lib %160-169%
    [!end]
    [!neq,%170%,]
    Ada/no_code_gen/base_lib=:ade:system.alib:library.lib %170-179%
    [!end]
    [!neq,%180%,]
    Ada/no_code_gen/base_lib=:ade:system.alib:library.lib %180-189%
    [!end]
    [!neq,%190%,]
    Ada/no_code_gen/base_lib=:ade:system.alib:library.lib %190-199%
    [!end]
    [!neq,%200%,]
    Ada/no_code_gen/base_lib=:ade:system.alib:library.lib %200-209%
    [!end]
    [!neq,%210%,]
    Ada/no_code_gen/base_lib=:ade:system.alib:library.lib %210-%
    [!end]
[!end]
Pop
```

B.30 FIND.CLI

```
[!eq,%0/s%,]
   Push
   Var0 0
   Var1 0
   String .%2%
   del/2=ign ?[!pid].tmp.files
   create ?[!pid].tmp.files
   Sea Ch%1% [!sea]
   %0%/s <[ch%1%_files]>
   del/2=ign ch%1%.%2%.files
   Ren ?[!pid].tmp.files ch%1%.%2%.files
   Wr Total number of %2% files: [!var0]
   Pop

[!else]
   [!neq,%1%,]
      [!eq,[!eext %1%],[!string]]
          Var0 [!uadd [!var0] 1]
          Wr/l=?[!pid].tmp.files %1% [!asc 46]
      [!end]
      %0%/s %2-%
   [!end]
[!end]
```

B.31 FLIST.CLI

```
  str SCRIPT.LOG
  WR Script file is [!str]
  del/2=ignore [!str]
  f/s/q/l=[!str] %1-%
    flist.1 [!str]
```

B.32 INTERWOVEN.CLI

```
ren/2=ign [!ename %1%].<lst,err>
create [!ename %1%].lst
X interwoven %1% [!ename %1%].<err,lst>
```

B.33 JS.CLI

```
qd/ty=bat%0/%
```

B.34 LKCH.CLI

```
look :udd:jimw:batch:ch%1%
```

B.35 LMGR.CLI

```
x :ade_programs:lmgr
```

B.36 LOAD.CLI

```
load/v/d @mtb%1%:1
new_tape
load/v/d @mtb%1%:2
rew @Mtb%1%
```

B.37 MAKE.CLI

```
[!ne,%1%,]
  wr Processing %1%
  del/2=ignore [!ename %1%].lst
  [!ne,[!fi %1%],]
    [!eq,[!fi [!ename %1%].err],]
      cr [!ename %1%].err
    [!end]
    x interwoven %1% [!ename %1%].<err,lst>
  [!else]
    cr [!ename %1%].lst
  [!end]
[!end]
```

B.38 MKB.CLI

```
[!eq,%0/s%,]
   Push
   del/2=ign ch%1%.b.files
   Sea Ch%1% [!sea]
   %0%/s <[ch%1%.files]>
   Pop

[!else]
   [!neq,%1%,]
       Break2 %1%
       Var0 [!string]
       Break.CLI %1%
      [!eq,[!string],B]
          Break2 %1%
          Wr/l=ch[!string].b.files %1% [!asc 46]
          Wr/l=ch[!string].b.files
```

B.38 MKB.CLI

```
      [!end]
      %0%/s %2-%
   [!end]
[!end]
```

B.39 MKLIST.CLI

```
Push
Var0 0
del/2=ign ch%1%.list
Create ch%1%.list
Wr/l=ch%1%.list Chapter %1%
wrlst %1% ([ch%1%.files])
Pop
```

B.40 NEW.CLI

```
PUSH
SEA [!DIR],[!SEA]
DIR %0%
[!ne,%1%,]
  %1-%
[!else]
  WRITE Current directory is [!DIR]
[!end]
```

B.41 QPRERR.CLI

```
[!eq,%0/s%,]
   Push
   ch%1%
   %0%/s ([ch%1%.err.files])
   Pop

[!else]
      [!Une,[!size [!ename %1%].lst],0]
         Qpri [!ename %1%].lst
      [!end]
[!end]
```

B.42 READ.CLI

```
[!Eq,[!efi [!dir]],NEW_TAPE]
   Wr
   Wr This program reads the ACVC tests into different directories.
   Wr
   Wr Make sure the tape drive is set at high density.
   Wr **** Don't forget to put switches into the CH-.FILES ****
```

B.42 READ.CLI

```
   Wr Make damn sure you have copies of the CH-.FILES because
   WR    it will be deleted later.............
   Wr There are extra copies in system h in case you need it
   Wr Don't forget to delete and recreate the directories by doing
   WR the following:
   Wr DEL CH<2,3,4,5,6,7,8,9,10,11,12,14>
   Wr Create/dir CH(2,3,4,5,6,7,8,9,10,11,12,14)
   Wr
   x %0-%
[!else]
   Wr Wrong directory:[!dir] to start tests
   WR You must be in directory: NEW_TAPE
[!end]
```

B.43 RUNALL.CLI

```
x/1=warn/2=warn ([!fi +pr])
```

B.44 RUNPR.CLI

```
Push
break.cli %2%
[!Neq,[!string],B]
   Dash [!explode %2%]
   Wr/l=%1% $$$$$ [!string]
   [!Neq,[!fi [!ename %2%].pr],]
      [!Eq,[!ename %2%],C94004A_B]
         Wr/l=%1%
         Wr/l=%1% ---- [!ename %2%].PR REQUIRES MANUAL INTERVENTION.
         Wr/l=%1% **** [!ename %2%] FAILED **********.
      [!else]
         String/k
         [!Eq,[!ename %2%],CE3406C_B]
            Proc/cpu=1/in=@null/out=%1%/blo/string [!ename %2%]
         [!else]
            Proc/in=@null/out=%1%/blo/string [!ename %2%]
         [!end]
         [!Neq,([!string]),()]
            Wr/l=%1%
            Wr/l=%1% ---- [!ename %2%].PR ENCOUNTERED RUNTIME ERROR.
            Wr/l=%1% ,,,,* [!string].
            Wr/l=%1% **** [!ename %2%] FAILED **********.
         [!end]
      [!end]
      Wr/l=%1%
   [!else]
      Wr/l=%1%
      Wr/l=%1% ---- [!ename %2%].PR DOES NOT EXIST.
      Wr/l=%1% **** [!ename %2%] FAILED **********.
      Wr/l=%1%
```

B.44 RUNPR.CLI

```
   [!end]
[!end]
Pop
```

B.45 RUN.CLI

```
del/2=ign ch%1%.pr.log
create ch%1%.pr.log
Wr/1=ch%1%.pr.log Date: [!date] and Time: [!time]
Wr/1=ch%1%.pr.log
ch%1%
Proc/input=@null/output=ch%1%.pr.log/blo/1=warn/2=warn/1=ch%1%.pr.log &
([!ename [ch%1%.main.files]])
exit
[!Neq,%0/qpr%,]
   Qpri/del ch%1%.pr.log
[!end]
```

B.46 SCRATCH.CLI

```
PUSH
SEA [!DIR],[!SEA]
DIR %0%
[!ne,%1%,]
  %1-%
[!else]
  WRITE Current directory is [!DIR]
[!end]
```

B.47 WRITE.CLI

```
[!Eq,[!efi [!dir]],SCRATCH]
   flist
   x %0% [!str]
[!else]
   Wr Wrong directory:[!dir] to start tests
   WR You must be in directory: SCRATCH
[!end]
```

B.48 XREF.CLI

```
ch_xref 2;dir ^ch3
ch_xref 3;dir ^ch4
ch_xref 4;dir ^ch5
ch_xref 5;dir ^ch6
ch_xref 6;dir ^ch7
ch_xref 7;dir ^ch8
ch_xref 8;dir ^ch9
```

```
ch_xref 9;dir ^ch10
ch_xref 10;dir ^ch11
ch_xref 11;dir ^ch12
ch_xref 12;dir ^ch14
ch_xref 14;
```

END

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